

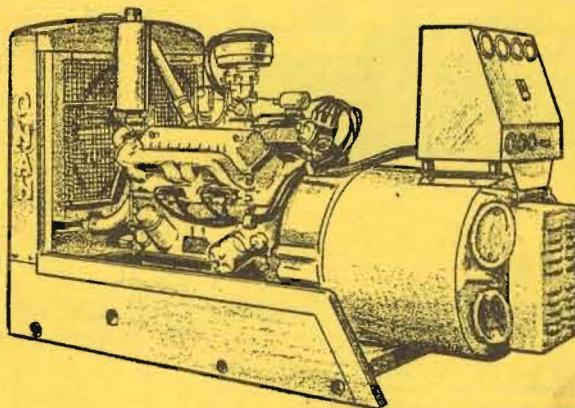
PARTS CATALOG

FOR

ONAN ELECTRIC GENERATING PLANTS

Series

EF



DIVISION OF STUDEBAKER CORPORATION
MINNEAPOLIS 14, MINNESOTA

963-1

Price \$1.00

Printed in U.S.A.

INSTRUCTIONS FOR ORDERING REPAIR PARTS

ALL PARTS EXCEPT FORD PARTS ARE AVAILABLE THRU YOUR ONAN DEALER. FOR CONVENIENCE, WE SUGGEST YOU OBTAIN THE FORD PARTS FROM YOUR LOCAL FORD INDUSTRIAL ENGINE DEALER.

ONAN PARTS

FOR ONAN PARTS OR SERVICE, CONTACT THE DEALER FROM WHOM YOU PURCHASED THIS EQUIPMENT OR REFER TO YOUR NEAREST ONAN AUTHORIZED SERVICE STATION.

TO AVOID ERRORS OR DELAY IN FILLING YOUR PARTS ORDER, PLEASE FURNISH ALL INFORMATION REQUESTED.

REFER TO THE ONAN NAMEPLATE ON YOUR PLANT.

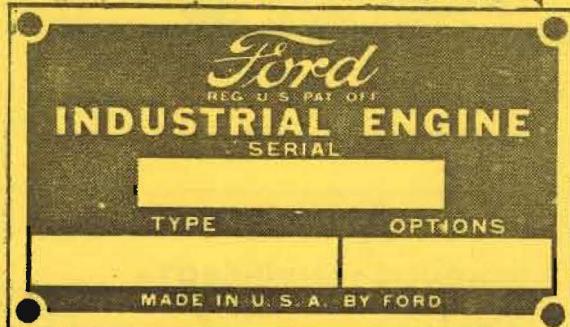
ALWAYS GIVE THE MODEL & SPEC. NO. and SERIAL NO.



A 532

FORD PARTS

ORDER BY PART NUMBER & DESCRIPTION FROM YOUR LOCAL FORD INDUSTRIAL ENGINE DEALER, GIVING COMPLETE FORD ENGINE NAMEPLATE INFORMATION.





EF SERIES

PARTS CATALOG

This Parts Catalog applies to the standard ONAN EF Series electric generating plants. They are powered by a Ford 8 cylinder, water cooled engine. They have a 12-volt ignition system and a static type generator exciter.

For FORD parts refer to this catalog and select parts required. Order the parts from your local FORD Industrial Engine Dealer, giving part number, description of part and complete FORD Engine Nameplate data.

When facing the "Front" or Radiator End the "Left Side" is the Charge Generator Side.

If a special or optional part is not listed, order by complete description of the part and furnish nameplate information.

Parts are illustrated in groups and have reference numbers which correspond to the like numbers in the list for that group.

Parts illustrations are typical and should not be construed to represent a particular part number.

Parts apply to all standard models except as otherwise shown in the part description.

REPLACEMENT ENGINE

100P270 Engine, Replacement - General Description
 Includes: Complete Block; Fuel Pump and Fuel Filter; Lub. Oil Filter; Distributor; Spark Plugs; Flywheel; Water Pump; Fan Bracket & Pulley Assembly.
 Excludes: Carburetor; Starter; Generator; Voltage Regulator; Ignition Coil; Governor; Radiator; Fan Belt; Fan Blades and Air Cleaner.

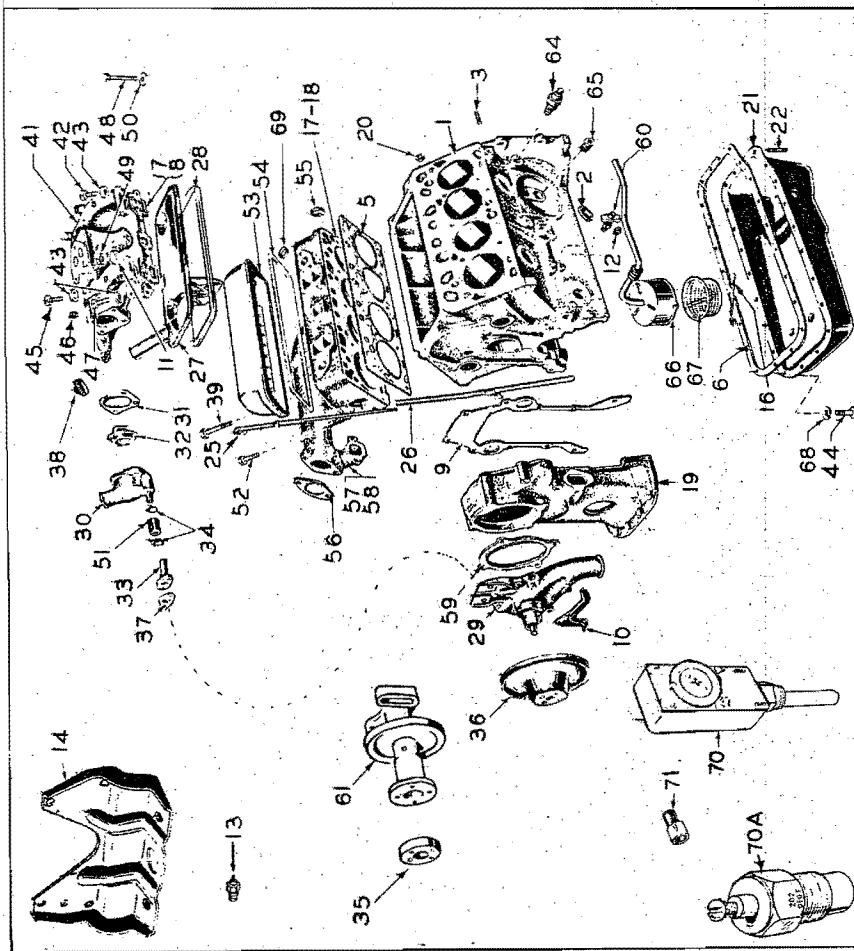


FIG. 1 - EXTERNAL VIEW, ENGINE PARTS GROUP

FIG. 2 - WATER PUMP PARTS GROUP

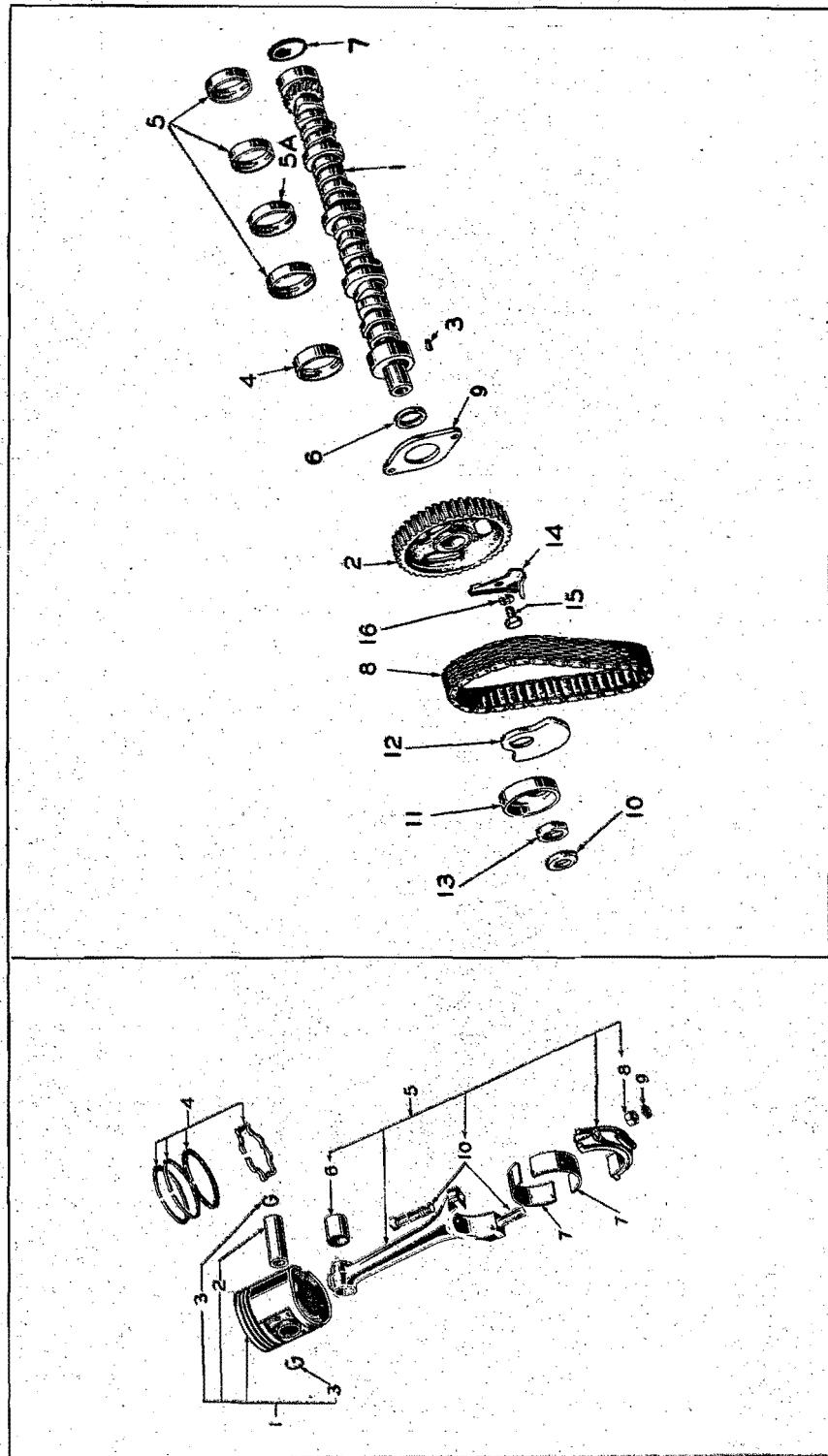


FIG. 3 - PISTON & CONNECTING ROD GROUP

FIG. 4 - CAMSHAFT GROUP

FIG. 6 - VALVE, ROCKER ARM & RELATED PARTS GROUP

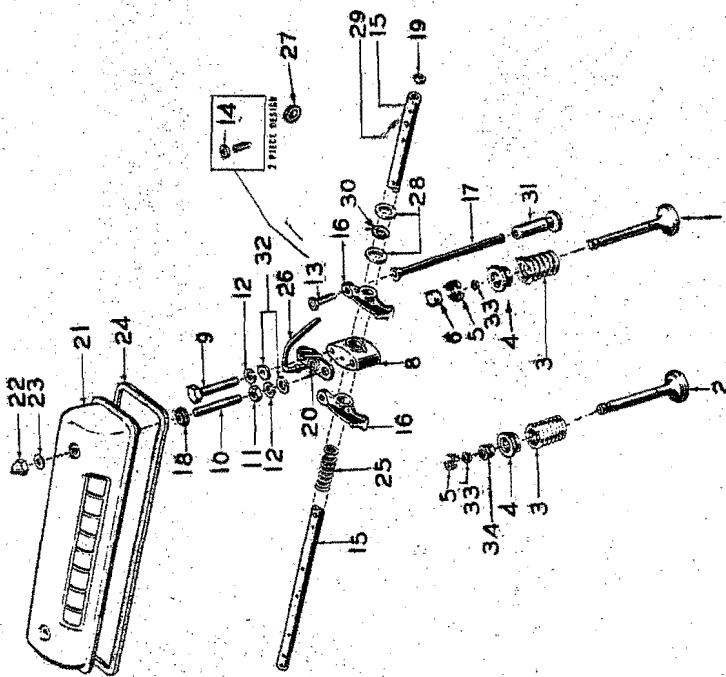
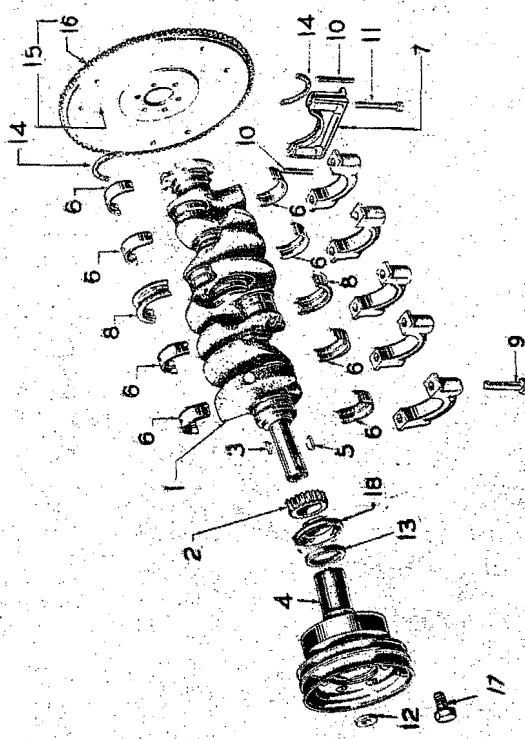


FIG. 6 - CRANKSHAFT GROUP



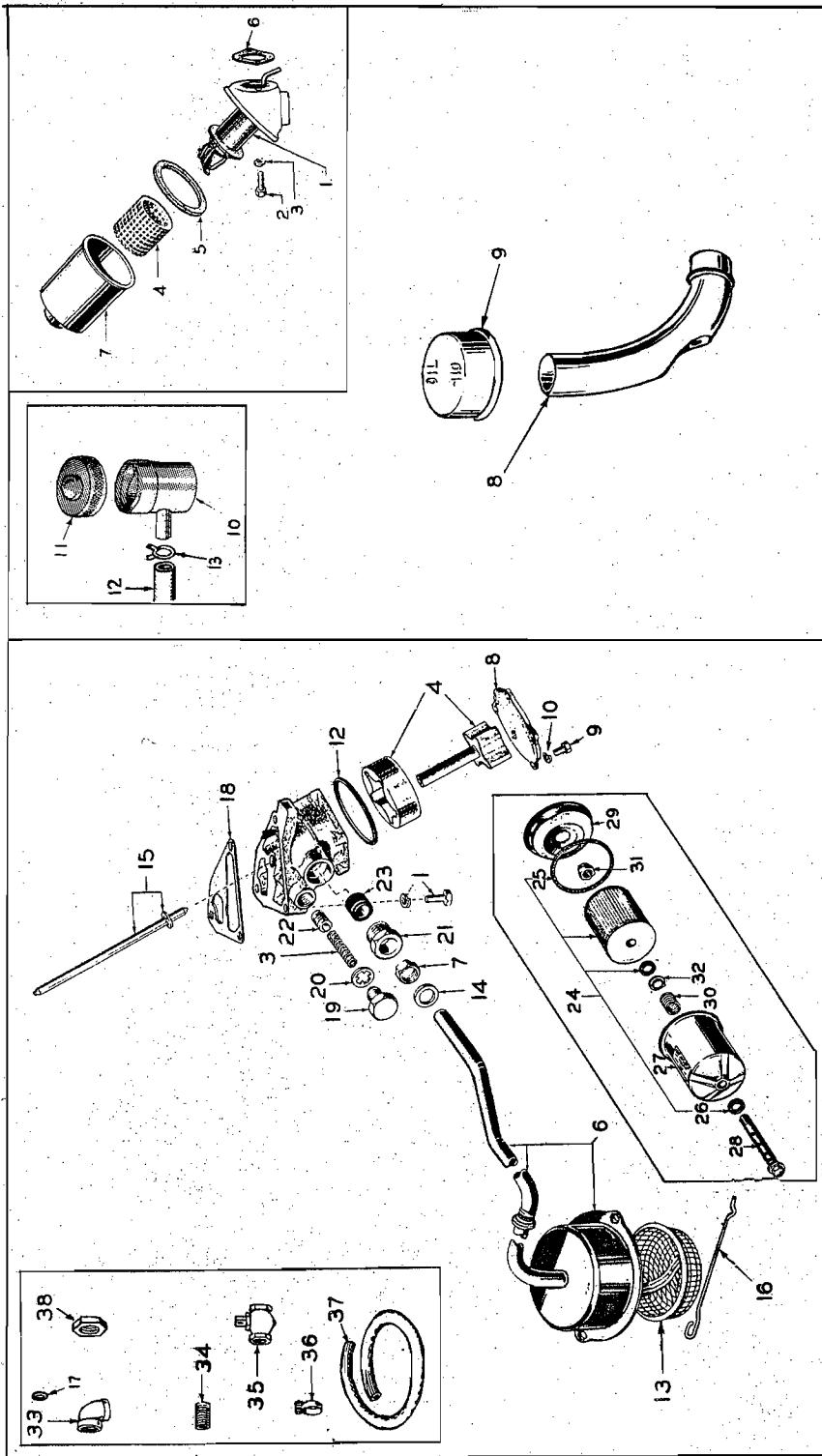


FIG. 7 - OIL PUMP & OIL FILTER GROUP

FIG. 8 - ENGINE VENTILATION SYSTEM
& RELATED PARTS GROUP

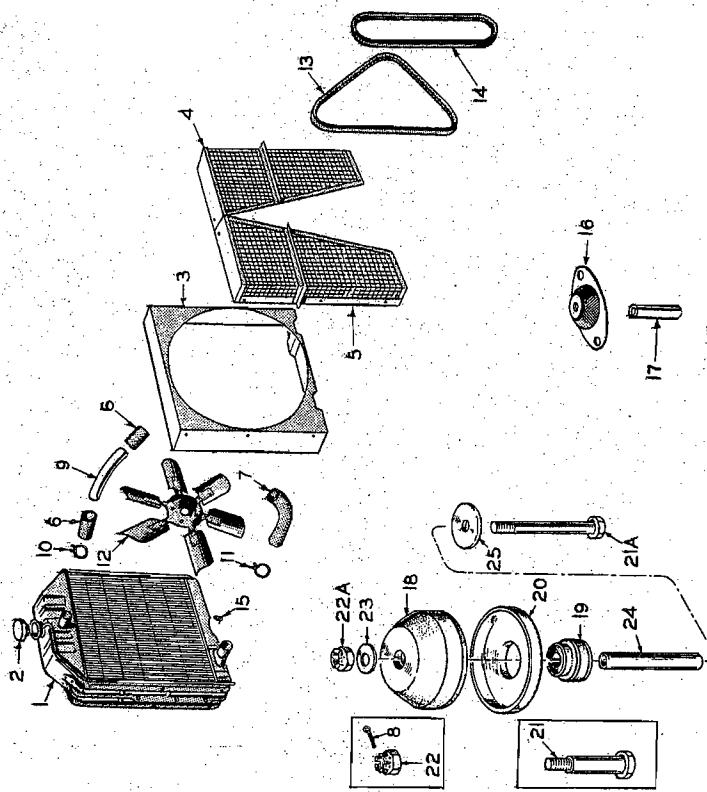


FIG. 10 - COOLING SYSTEM & MOUNTING CUSHION GROUP

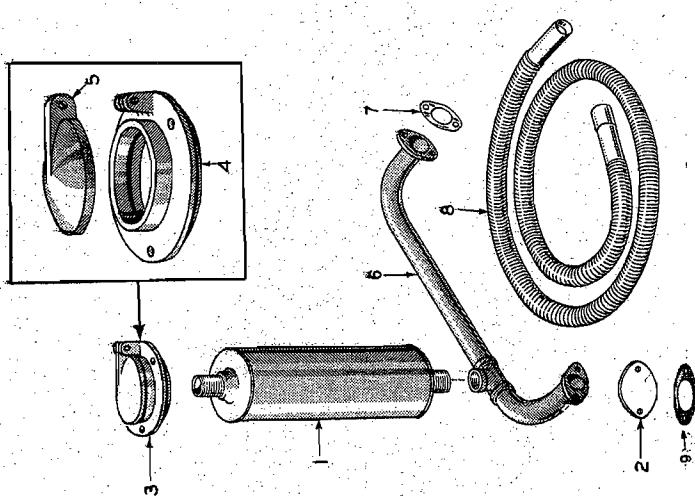


FIG. 9 - MUFFLER & MANIFOLD GROUP

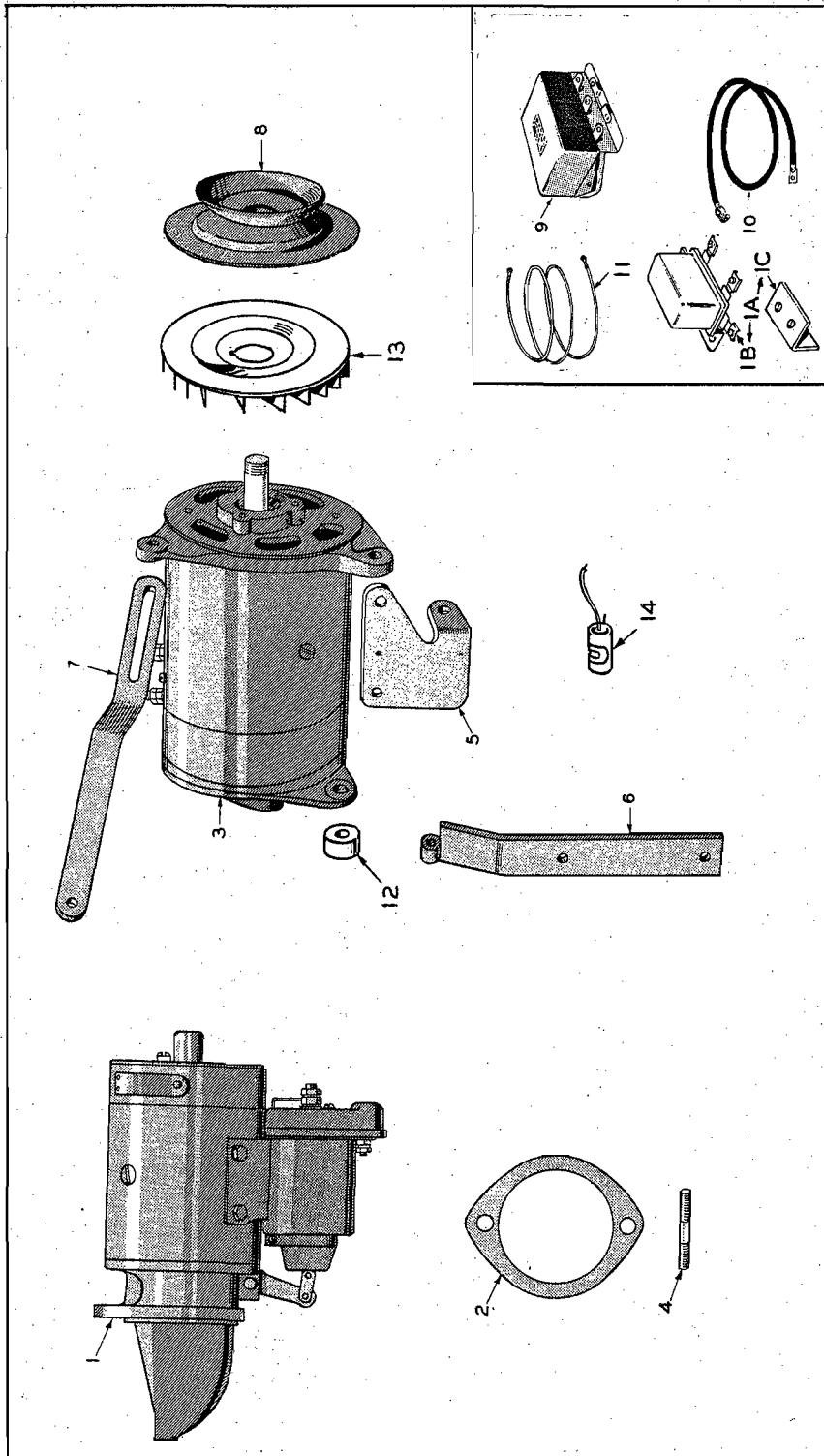


FIG. 11 - STARTING MOTOR & BATTERY CHARGING GENERATOR GROUP

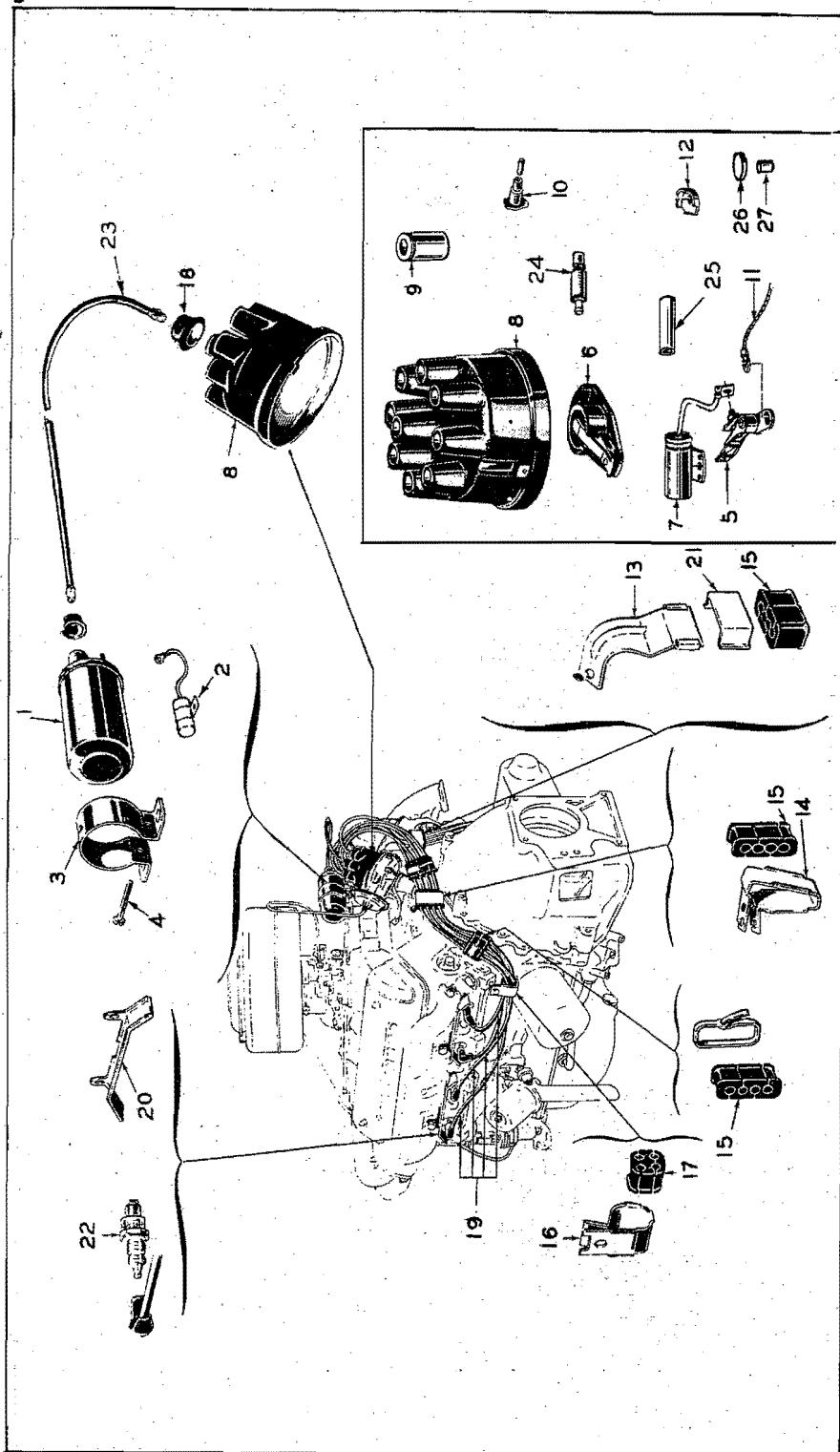


FIG. 12 - IGNITION GROUP

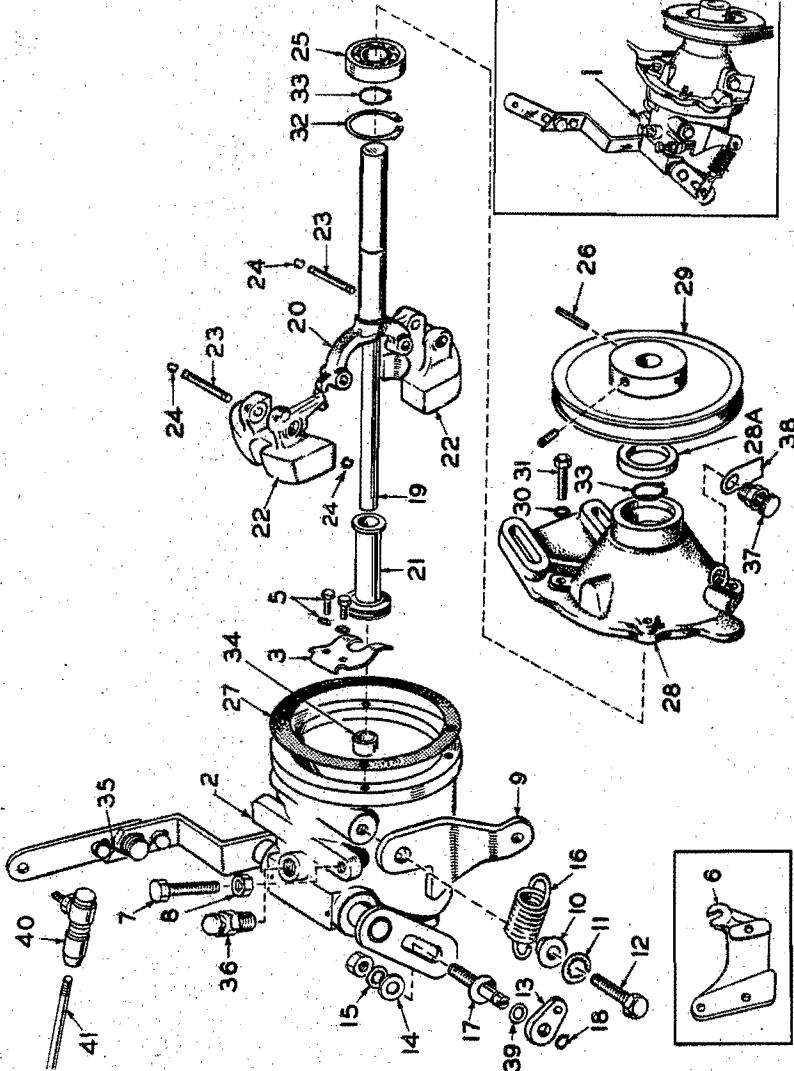


FIG. 13- GOVERNOR PARTS GROUP

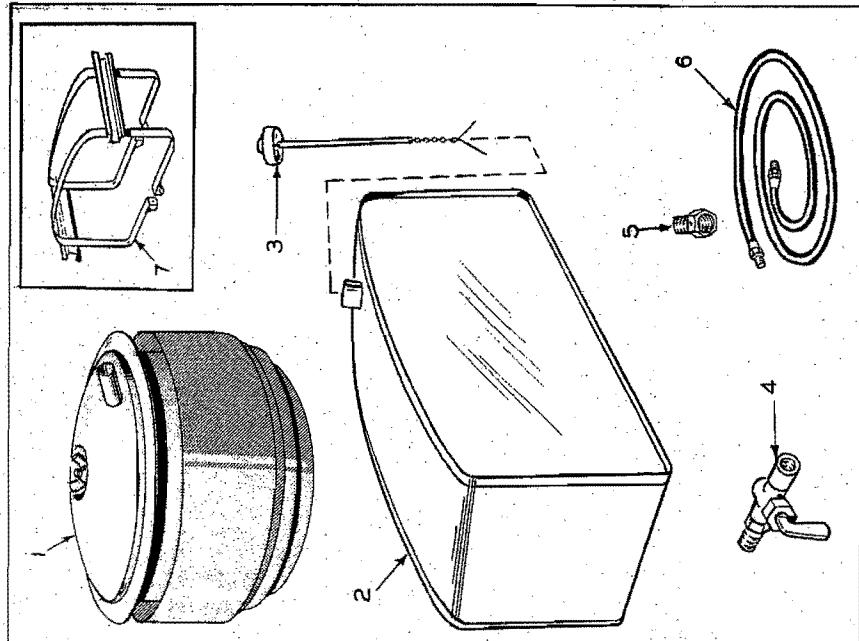


FIG. 15 - FUEL SYSTEM GROUP (GASOLINE)

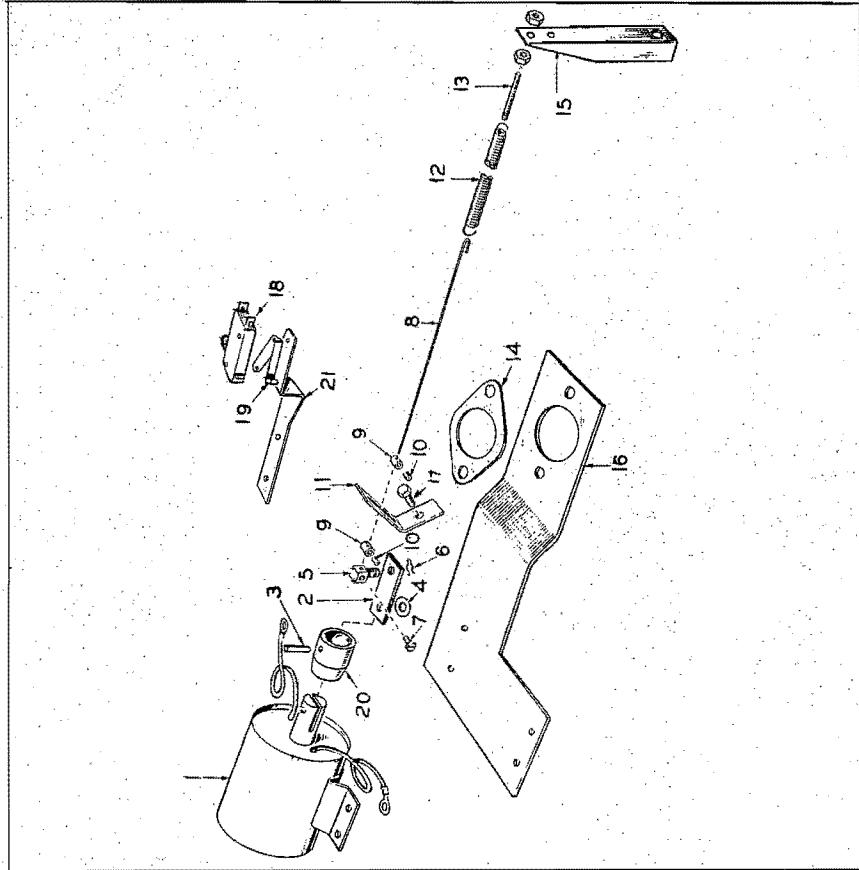


FIG. 14 - ANTI-DIESELING CONTROL GROUP (GASOLINE FUELED PLANTS)

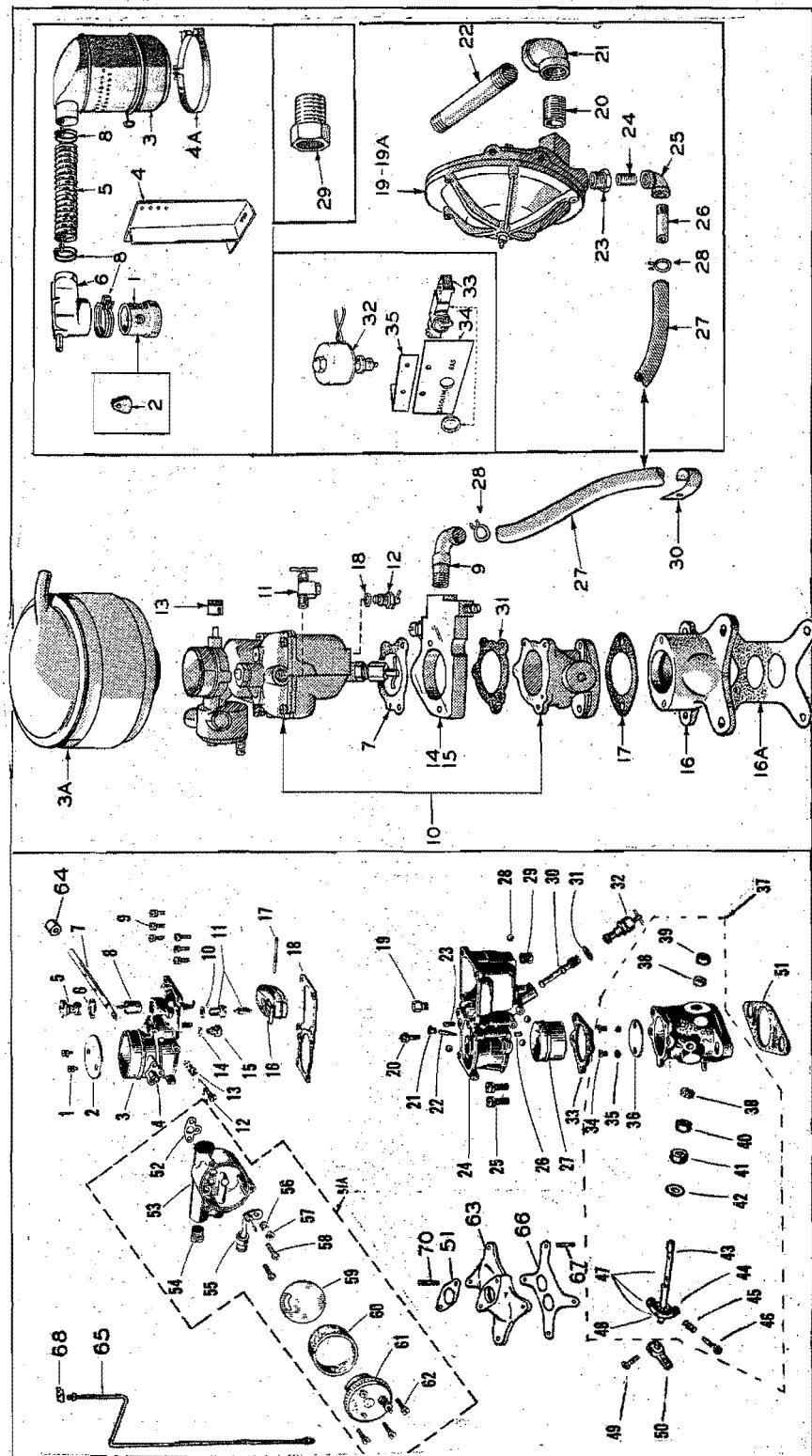


FIG. 16 - CARBURETOR GROUP (GASOLINE)

FIG. 17 - SPECIAL FUEL SYSTEM GROUP
(COMBINATION GAS-GASOLINE) and (GAS ONLY)

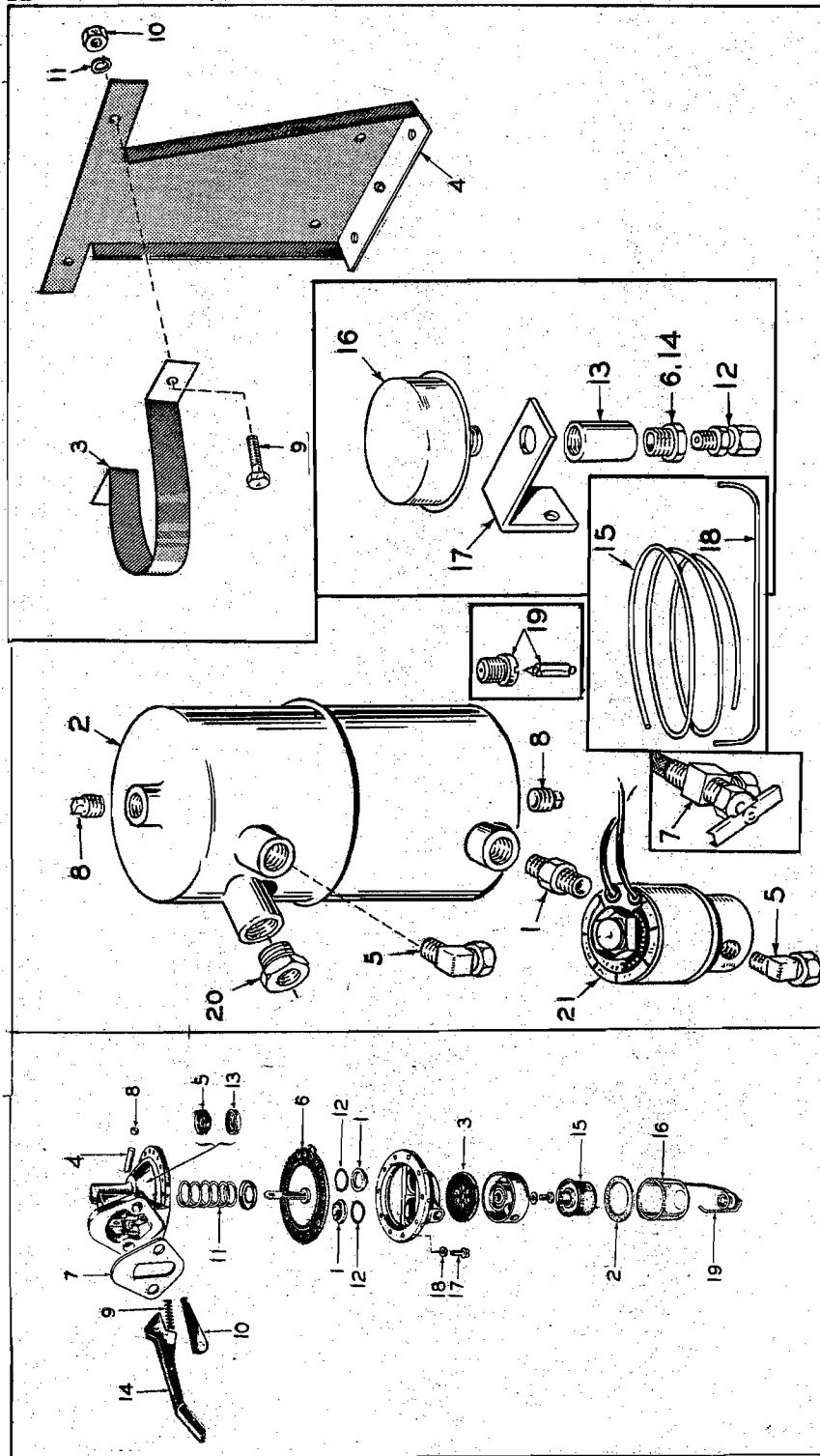


FIG. 21 - GENERATOR GROUP
- Static Exciter Portion (Model 102SX)

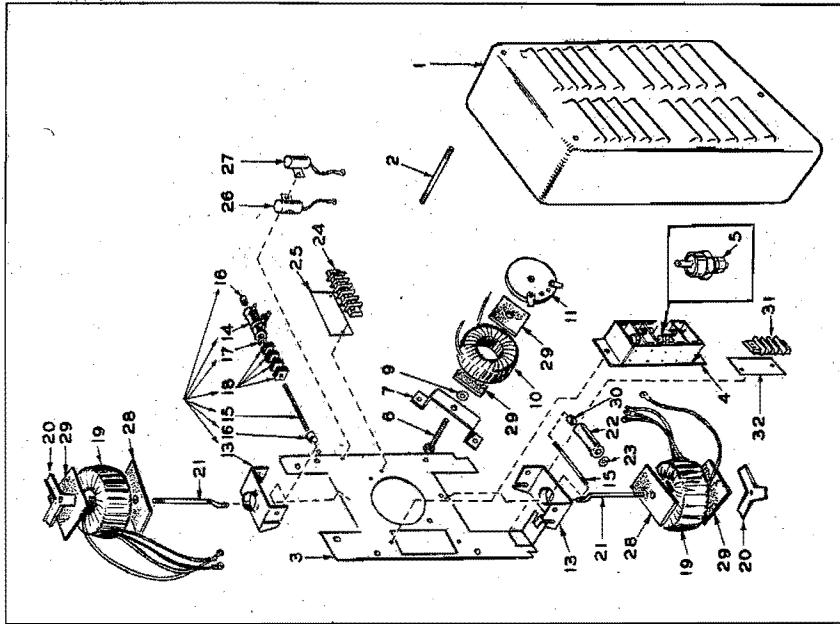
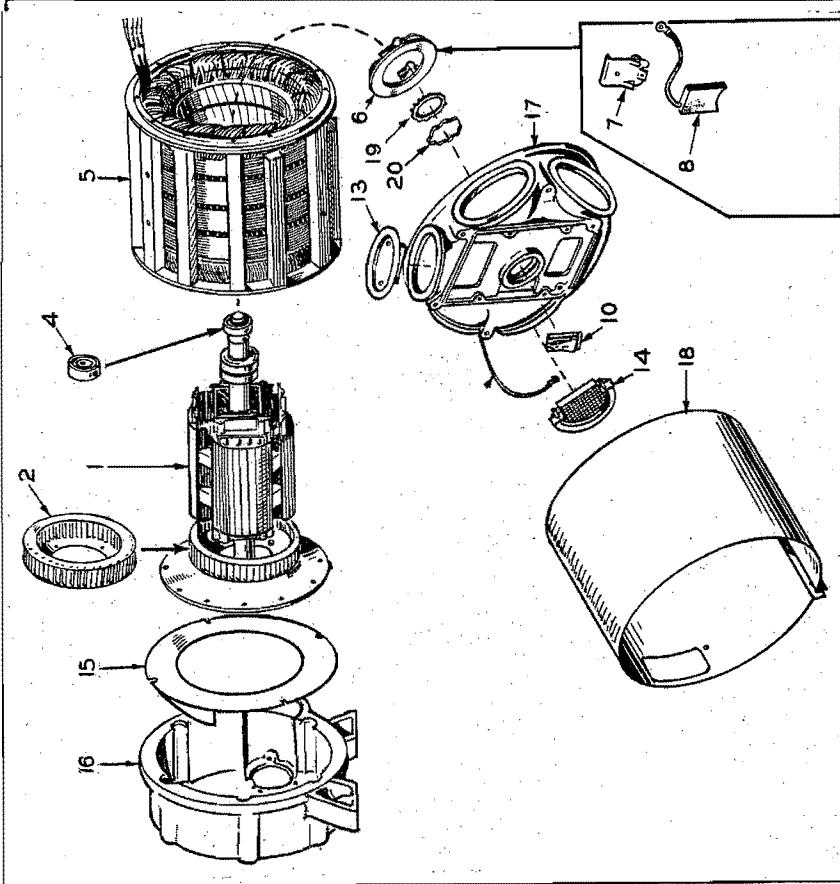


FIG. 20 - GENERATOR GROUP (Alternator Portion)



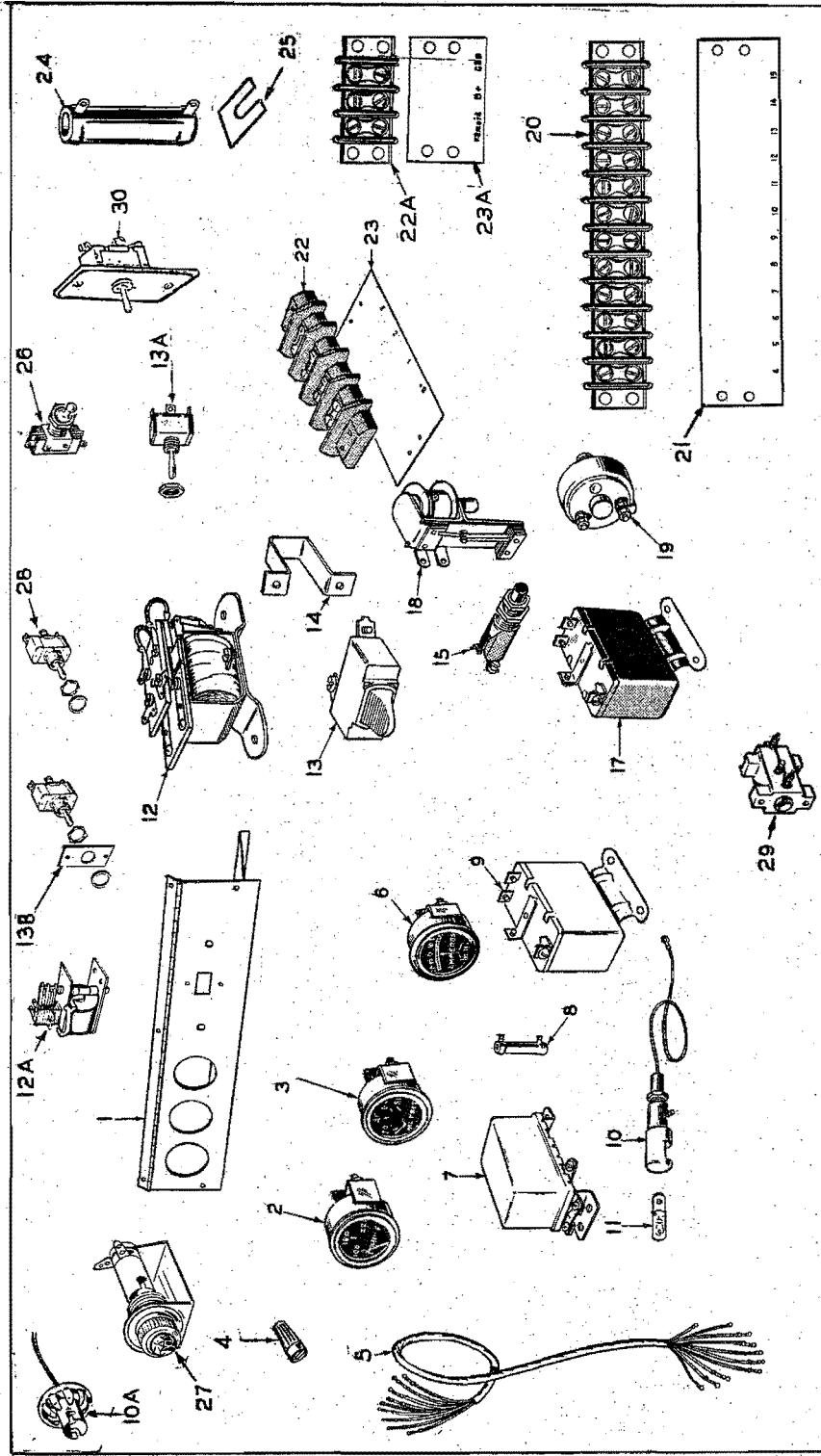


FIG. 22 - LOWER CONTROL PANEL GROUP (Engine Instruments)

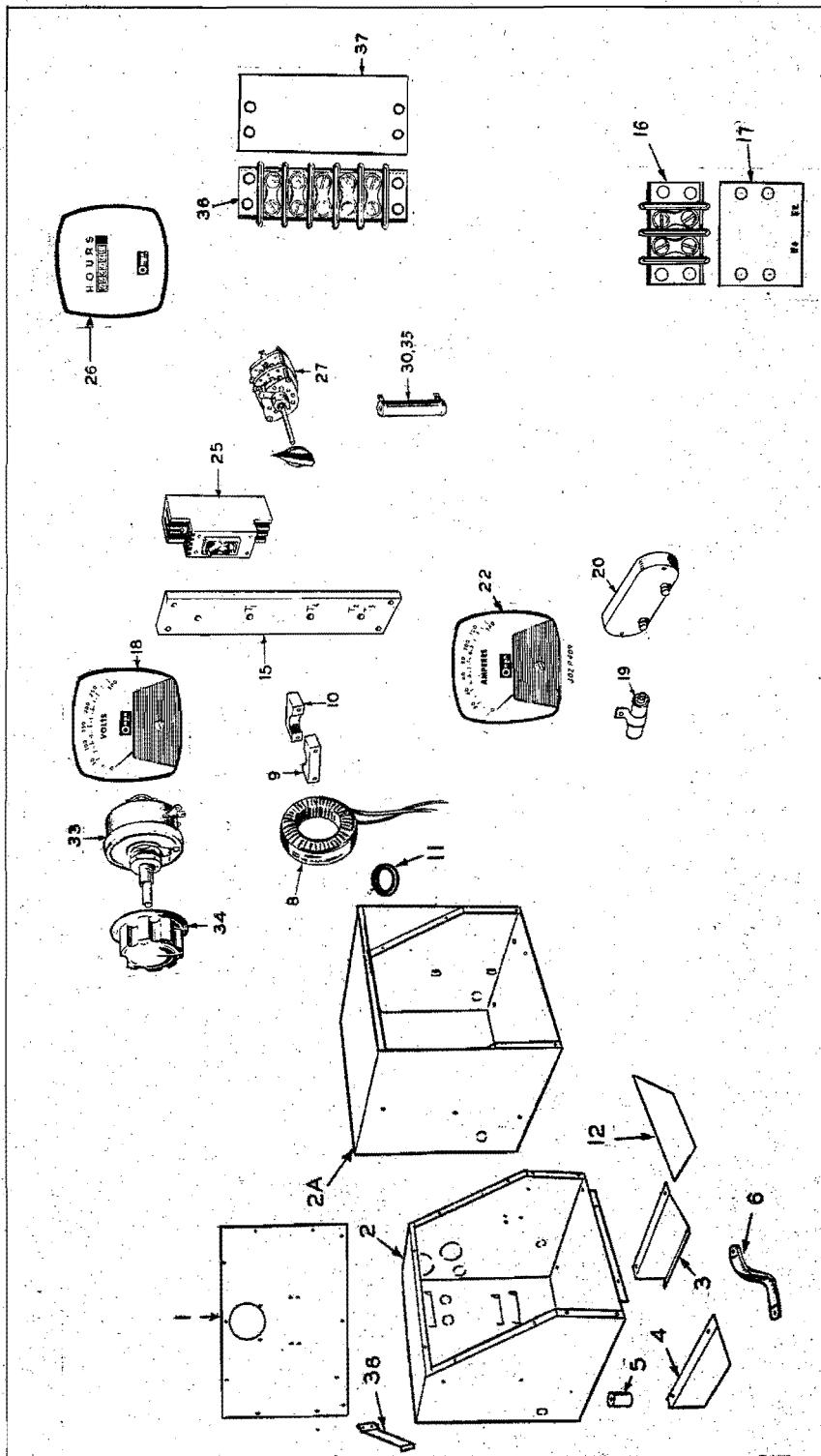


FIG. 23 - UPPER CONTROL PANEL GROUP (AC Output)

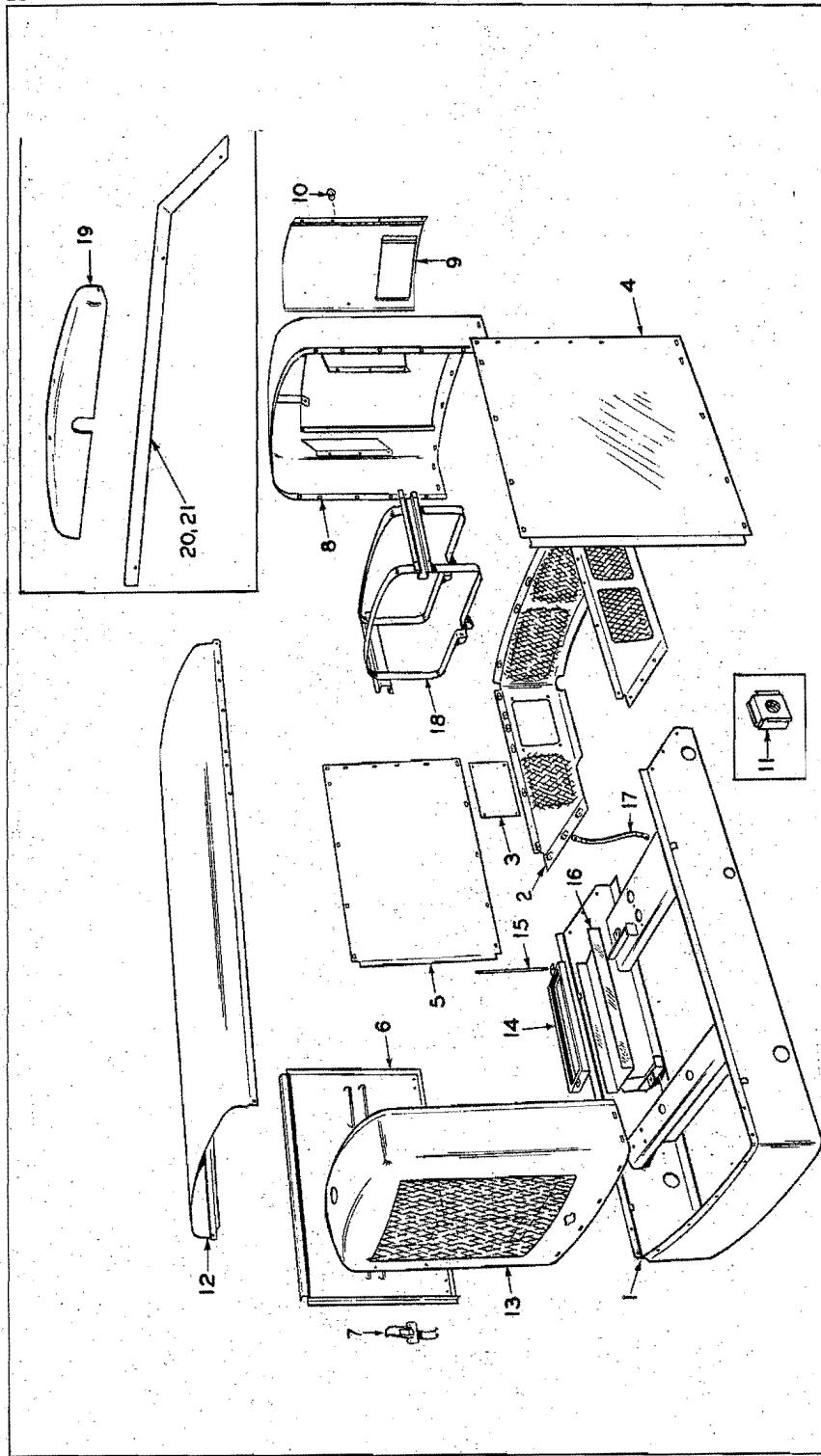
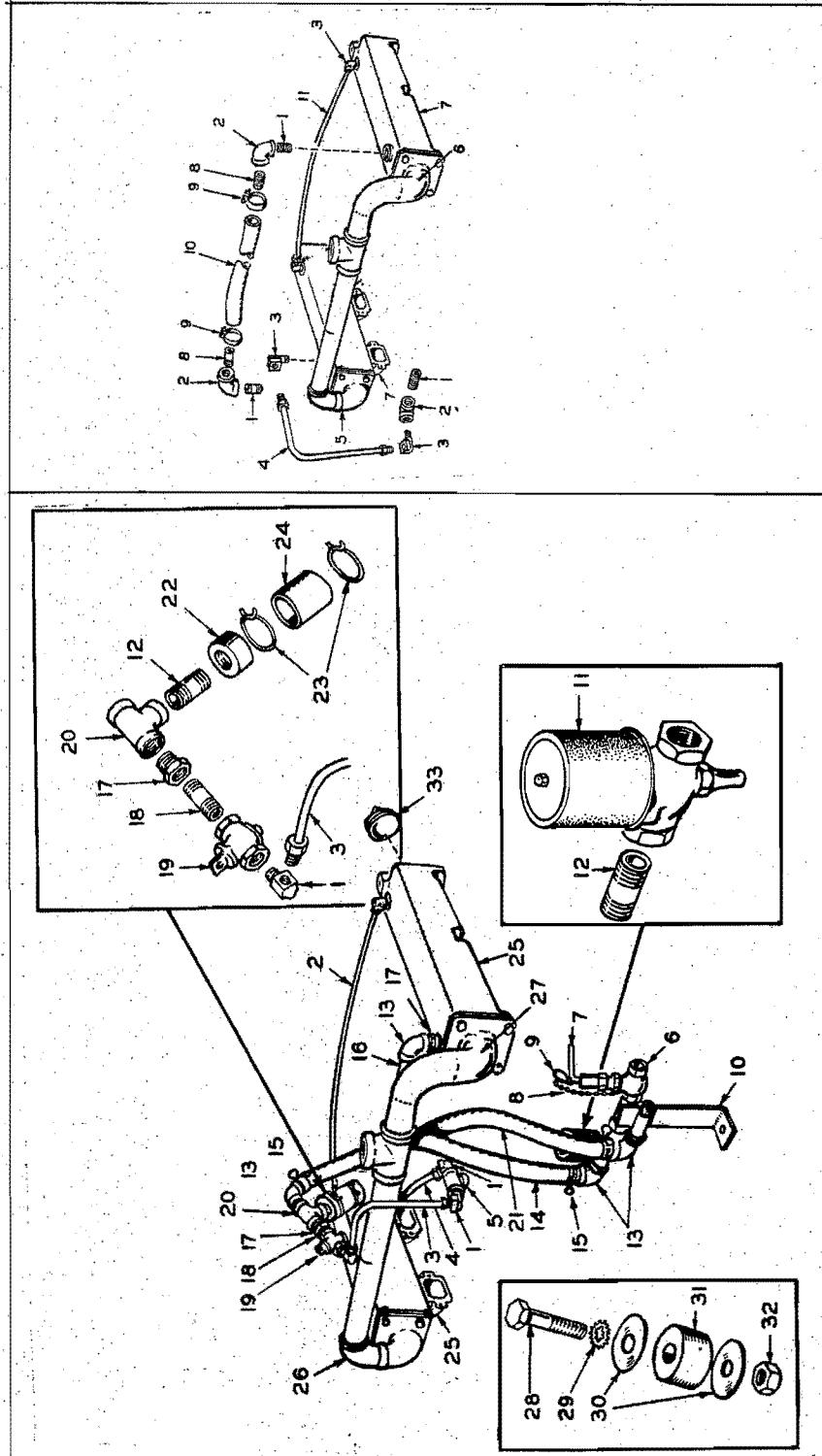


FIG. 24 - HOUSING GROUP

FIG. 26 - WATER COOLED MANIFOLD GROUP
(RADIATOR COOLING)



PARTS LIST

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
100P270	1	1	FIG. 1 - EXTERNAL VIEW, ENGINE PARTS GROUP
(FM)B9TE-6009-L	1	1	Engine, Replacement (For general description see Page No. 1).
1 (FM)B5AE-6010-B	1	1	Cylinder Assembly.
2 (FM)354942-S	4	4	Block Assembly, Cylinder.
3 (FM)72249-S	2	2	Plug, Cylinder Block Side - Cup Type - 1 3/4" diameter.
4 185-3	1	1	Dowel, Cylinder Block to Generator Adapter - 3 7/8" x 9/16".
5 185-4	1	1	Gasket Set, Partial - Engine Overhaul - (FM)COAZ-6008-B - Replaces (FM)COAZ-6013-B.
6 185-11	2	2	Gasket, Partial - Upper Engine Service - Valve Grind - (FM)COAZ-6019-B - Replaces (FM)B6A-6014-C.
7 185-66	1	1	Gasket, Cylinder Head - (FM)CIAE-6051-B - Replaces (FM)B6A-6051-B.
8 185-86	1	1	Gasket, Oil Pan - (FM)COAE-6710-B - Replaces (FM)B6A-6710-A.
9 185-87	1	1	Gasket, Intake Manifold - Right Hand - (FM)B7A-9439-B.
10 (FM)B5A-6023-C	1	1	Gasket, Intake Manifold - Left Hand - (FM)B7A-9441-B.
11 (FM)B5A-9446-A	4	4	Gasket, Cylinder Timing Gear Front Cover - (FM)B4A-6020-A.
12 (FM)87710-S	2	2	Pointer, Timing.
13 193A104	1	1	Clamp, Intake Manifold to Cylinder Head.
14 (FM)B6C-6028-A	1	1	Plug, Cylinder Block Main Oil Line - 3/8" Pipe.
15 (FM)EAD-6628-A	1	1	Sender, Water Temperature Gauge - Engine Unit Only.
16 (FM)B8C-6049-A	2	2	Bracket, Engine Front Support.
17 (FM)CITEM-6090-D	2	2	Retainer, Oil Pump Screen.
18 (FM)C2TE-6059-A	1	1	Head, Cylinder - Prior to FORD Serial #10171S5CR.
19 (FM)B2TZ-6A008-A	4	4	Head, Cylinder - Begin FORD Serial #10171S5CR. - Replaces (FM)COTE-6090-B.
20 (FM)B5C-6675-A	1	1	Cover, Cylinder Timing Gear Front. - Replaces (FM)B5C-6059-B.
21 (FM)B8T-6675-A	1	1	Dowel, Cylinder Head to Cylinder Block. - Replaces (FM)B2Q-6061-A.
22 (FM)371065-S	2	2	Pan Assembly, Engine Oil - Prior to FORD Serial #10171S5CR.
23 (FM)B9TE-6750-B	1	1	Pan Assembly, Engine Oil - Begin FORD Serial #10171S5CR.
24 (FM)EBZ-6754-A	1	1	Bolt, Oil Pan to Crankshaft Rear Bearing Oil Seal Retainer.
25 (FM)B6A-6519-A	1	1	Tube, Oil Level Indicator - Includes Bracket.
26 (FM)COTE-6519-A	1	1	Cover, Valve Push Rod - Prior to FORD Serial #10171S5CR.
27 (FM)COAE-6521-A	1	1	Cover, Valve Push Rod - Begin FORD Serial #10171S5CR. - Replaces (FM)B9TE-6519-A.
28 185-45	1	1	Gasket, Valve Push Rod Cover - (FM)COAE-6521-A - Replaces (FM)76A-6521-A

NOTE: Order Ford Parts from your local Ford Dealer, giving Part Number, description and complete Ford Engine Nameplate data.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 1 - EXTERNAL VIEW, ENGINE PARTS GROUP (Cont.)

29	(FM)B6T-8501-B	1	Pump Assembly, Water - Replaces (FM)B6C-8501-B.
30	(FM)B5C-85592-A	1	Connection, Cylinder Head Water Outlet.
31	(FM)B5A-82585-A	1	Gasket, Water Outlet Connection.
32	(FM)COAZ-85757-A	1	Thermostat - 160° - Replaces (FM)B7C-85757-A.
33	(FM)B5A-85448-A	1	Tube, By-Pass.
34	(FM)BPA-18572-A	2	Clamp, Hose - Water Outlet to By-Pass Tube.
35	(FM)BC6-85446-A	1	Spacer, Fan Pulley to Fan Blade.
36	(FM)B5C-85609-A	1	Pulley, Water Pump.
37	(FM)EAN-8563-B	1	Gasket, Radiator By-Pass Water Tube.
38	159A7	1	Cap, Oil Filler.
39	(FM)B2AZ-6065-A	6	Bolt, Cylinder Head - 7/16" - 14 x 4.06" - Replaces (FM)B6A-6066-A.
39	(FM)B6AZ-6065-A	4	Bolt, Cylinder Head - 7/16" - 14 x 4.32" - Replaces (FM)B7T-6066-A.
41	(FM)COAE-9425-F	1	Manifold, Intake - Replaces (FM)B9T-9425-F.
42	(FM)20408-S7	4	Bolt, Intake Manifold to Cylinder Head - 3/8" - 16 x 1-1/8".
43	(FM)31385-S7	6	Washer, Intake Manifold to Cylinder Head - 3/8" - Flat.
44	(FM)20326-S7	20	Bolt, Oil Pan to Cylinder Block and Front Cover - 5/16" - 18 x 5/8".
45	(FM)88492-S	4	Stud, Intake Manifold to Cylinder Head.
46	(FM)87710-S	1	Plug - 3/8"-18 - Intake Manifold.
47	(FM)20506-S7	4	Bolt, Intake Manifold to Cylinder Head - 3/8" - 16 x 1-3/4".
48	(FM)45582-S8	2	Bolt, Push Rod Cover to Cylinder Block - 5/16" - 18 x 4-1/2".
49	(FM)33800-S8	4	Nut - 3/8"-24 - Intake Manifold Mounting Stud.
50	(FM)44722-S8	2	Washer, Flat - 5/16" - Push Rod Cover to Cylinder Block Bolt.
51	(FM)ECE-88558-A	1	Hose, Water By-Pass Connection.
52	(FM)B6A-6065-A	10	Bolt, Cylinder Head - 7/16"-14 x 2.13".
53	(FM)B9AE-6553-E	2	Cover Assembly, Valve Rocker Arm.
54	(FM)COAZ-6A506-B	1	Kit, Rocker Arm Cover Gasket and Seal. Replaces (FM)B4A-65585-A.
55	(FM)EAN-6052-A	1	Plug, Cylinder Head.
56	154A472	2	Gasket, Exhaust Manifold to Crossover.
57	(FM)ECE-9428-B	1	Manifold, Exhaust - Right Hand. - Replaces (FM)B5A-9430-B.
58	(FM)ECE-9429-B	1	Manifold, Exhaust - Left Hand. - Replaces (FM)B5A-9431-B.
59	(FM)B5A-8507-A	1	Gasket, Water Pump Housing.

NOTE: Order Ford Parts from your local Ford Dealer, giving Part Number, description and complete Ford Engine Nameplate data.

PARTS LIST

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
60	(FM)8A-8115-A	1	Cock, Cylinder Block Drain.
61	(FM)EBV-8625-A	1	Pulley Assembly, Fan Drive - Includes Bracket.
64	193A108	1	Sender, Oil Pressure Gauge - Engine Unit.
65	(FM)EAA-6890-C	1	Insert, Oil Filter Mounting Bolt.
66	(FM)B4C-6615-A	1	Cover and Inlet Tube Assembly, Oil pump Screen - Prior to FORD Serial #10171S5CR.
66	(FM)COTE-6615-A	1	Cover and Inlet Tube Assembly, Oil pump Screen - Prior to FORD Serial #10171S5CR.
67	(FM)41A-6623-A	1	Screen Assembly, Oil pump Screen - Prior to FORD Serial #10171S5CR.
68	(FM)34806-S7	22	Washer, Oil Pan Mounting Bolt.
69	(FM)B9T-6052-AA	8	Insert, Valve Seat. Exhaust.
	(FM)B9T-6057-AB	8	Standard.
70	309B1	1	.020" Oversize.
70A	309A146	1	Switch, Hi Water Temperature Cut-off, Adjustable, Mounts on Engine - (Use #309A146).
71	309A81	1	Switch, Hi Water Temperature Cut-off, Non Adjustable, Mounts on Engine.
	(FM)20388-S8	14	Extender, Pipe - Hi Water Temperature Switch (Use only with 309B1 Switch).
	(FM)331385-S8	14	Bolt, Exhaust Manifold to Cylinder Head - 3/8-16 x 1".
			Washer, Exhaust Manifold Bolt - 3/8" flat x .75 O.D.

FIG. 1 - EXTERNAL VIEW, ENGINE PARTS GROUP (Cont.)

60	(FM)8A-8115-A	1	Cock, Cylinder Block Drain.
61	(FM)EBV-8625-A	1	Pulley Assembly, Fan Drive - Includes Bracket.
64	193A108	1	Sender, Oil Pressure Gauge - Engine Unit.
65	(FM)EAA-6890-C	1	Insert, Oil Filter Mounting Bolt.
66	(FM)B4C-6615-A	1	Cover and Inlet Tube Assembly, Oil pump Screen - Prior to FORD Serial #10171S5CR.
66	(FM)COTE-6615-A	1	Cover and Inlet Tube Assembly, Oil pump Screen - Prior to FORD Serial #10171S5CR.
67	(FM)41A-6623-A	1	Screen Assembly, Oil pump Screen - Prior to FORD Serial #10171S5CR.
68	(FM)34806-S7	22	Washer, Oil Pan Mounting Bolt.
69	(FM)B9T-6052-AA	8	Insert, Valve Seat. Exhaust.
	(FM)B9T-6057-AB	8	Standard.
70	309B1	1	.020" Oversize.
70A	309A146	1	Switch, Hi Water Temperature Cut-off, Adjustable, Mounts on Engine - (Use #309A146).
71	309A81	1	Switch, Hi Water Temperature Cut-off, Non Adjustable, Mounts on Engine.
	(FM)20388-S8	14	Extender, Pipe - Hi Water Temperature Switch (Use only with 309B1 Switch).
	(FM)331385-S8	14	Bolt, Exhaust Manifold to Cylinder Head - 3/8-16 x 1".

FIG. 2 - WATER PUMP PARTS GROUP

1	(FM)B6T-8501-B	1	Pump Assembly, Water - Replaces (FMB6C-8501-B).
1	(FM)B6C-8591-A	1	Repair Kit, Water Pump - Includes parts marked (†) - Use with (FM)B6C-8501-B Pump.
1	(FM)B5A-8591-C	1	Repair Kit, Water Pump - Includes parts marked (●) - Use with (FM)B6T-8501-B Pump.
2	(FM)OBA-8376-A	1	●Ring, Lock - Pump Shaft - Use with (FM)B6T-8501-B Pump.
2	(FM)BBA-8630-A	1	●Ring, Lock - Pump Shaft - Use with (FM)B6T-8501-B Pump.
2	(FM)BEEQ-8648-A	2	†Ring, Lock - Pump shaft - Use with (FM)B6C-8501-B Pump.
3	(FM)B5A-8507-A	1	●Gasket, Water Pump Housing.
4	(FM)B6C-8530-A	1	●Shaft and Bearing Assembly.
5	(FM)B6C-8564-A	1	●Seal, Water Pump - Use with (FMB6C-8501-B Pump).
5	(FM)TRA-8564-B	1	●Seal, Water Pump - Use with (FM)B6T-8501-B Pump.
7	(FM)B5A-8512-B	1	†Impeller, Water Pump.
8	(FM)THA-8550	1	●Slinger, Water Pump.
9			Housing - Not Sold Separately - Order Complete Pump.
10	(FM)B7A-8553-A	1	Hub, Water Pump Pulley - Replaces (FM)B6C-8553-B.

NOTE: Order Ford Parts from your local Ford Dealer, giving Part Number, description and complete Ford Engine Nameplate data.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
1	(FM)B5A-6108-B	8	Piston and Pin Assembly - Includes Retainers - Standard Size (Also available in .020", .030", .040" and .060" Oversize - Specify).
2	(FM)EAA-6135-B	8	Pin, Piston - Standard Size (Also available in .001" and .002" Oversize - Specify).
3	(FM)B7Q-6140-A	16	Retainer, Piston Pin.
4	(FM)BBC-6148-AAA	4	Ring Set, Partial - Standard Size - Steel Section Type (Also available in .020", .030", .040" and .060" Oversize - Specify). Consists of necessary rings to re-ring two pistons.
5	(FM)B5A-6200-A	8	Rod Assembly, Connecting - Less Bearings (Oil squirt hole on side with bearing notch).
6	(FM)CIAE-6207-A	8	Bushing, Connecting Rod. - Replaces (FM)EAA-6207-A.
7	(FM)B5T-6211-A	16	Bearing, Connecting Rod (Halves) - Standard Red Size (or Blue Size #B5T-6211-B) - (Also available in .010", .020" and .030" Undersize - Specify).
8	(FM)CITE-6212-A	16	Nut, Connecting Rod. - Replaces (FM)B4A-6212-A.
9	(FM)4218-S8	16	Nut, Pal - Connecting Rod Nut - 3/8"-24.
10	(FM)CIAE-6214-A	16	Bolt, Connecting Rod. - Replaces (FM)B8A-6214-A.

FIG. 3 - PISTON AND CONNECTING ROD GROUP

REF. NO.

PART NO.

QUANT. USED

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
1	(FM)B8A-6250-C	1	Camshaft Assembly - Less Gear - 7/16"-14 x 1" Tap at front end - 14 teeth on distributor drive gear - 21.54" overall length.
2	(FM)EAA-6256-A	1	Sprocket, Camshaft - 42 teeth.
3	(FM)74147-S	1	Key, Woodruff - Sprocket to Camshaft - 5/32 x 3/4".
4	(FM)B4C-6261-A	1	Bearing, Camshaft - Front - Standard Size (Also available in .015" Undersize - Specify).
5	(FM)EBY-6263-B	3	Bearing, Camshaft - Intermediates and Rear - Standard Size (Also available in .015" Undersize - Specify).
5A	(FM)B6A-6262-A	1	Bearing, Camshaft - Center - Standard Size (Also available in .015" Undersize - Specify).
6	(FM)EBU-6265-A	1	Spacer, Camshaft Sprocket.
7	(FM)7HA-6266-A	1	Plug, Camshaft Rear Bearing - Located at rear of cylinder block.
8	(FM)EAA-6268-B	1	Chain, Timing - 56 Links.
9	(FM)EAA-6269-B	1	Plate, Camshaft Thrust.

FIG. 4 - CAMSHAFT GROUP

1	(FM)B8A-6250-C	1	Camshaft Assembly - Less Gear - 7/16"-14 x 1" Tap at front end - 14 teeth on distributor drive gear - 21.54" overall length.
2	(FM)EAA-6256-A	1	Sprocket, Camshaft - 42 teeth.
3	(FM)74147-S	1	Key, Woodruff - Sprocket to Camshaft - 5/32 x 3/4".
4	(FM)B4C-6261-A	1	Bearing, Camshaft - Front - Standard Size (Also available in .015" Undersize - Specify).
5	(FM)EBY-6263-B	3	Bearing, Camshaft - Intermediates and Rear - Standard Size (Also available in .015" Undersize - Specify).
5A	(FM)B6A-6262-A	1	Bearing, Camshaft - Center - Standard Size (Also available in .015" Undersize - Specify).
6	(FM)EBU-6265-A	1	Spacer, Camshaft Sprocket.
7	(FM)7HA-6266-A	1	Plug, Camshaft Rear Bearing - Located at rear of cylinder block.
8	(FM)EAA-6268-B	1	Chain, Timing - 56 Links.
9	(FM)EAA-6269-B	1	Plate, Camshaft Thrust.

NOTE: Order Ford Parts from your local Ford Dealer, giving Part Number, description and complete Ford Engine Nameplate data.

PARTS LIST

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 4 - CAMSHAFT GROUP (Cont.)

10	(FM)EAA-6278-B	1	Washer, Camshaft Sprocket.
11	(FM)CIAE-6287-A	1	Ecceinric, Camshaft Fuel Pump Drive - Replaces B5A-6287-A.
12	(FM)B7A-6290-A	1	Spacer, Camshaft Fuel Pump Eccentric.
13	(FM)B4A-6291-A	1	Spacer, Camshaft Fuel Pump Drive Eccentric.
14	(FM)EAN-6880-A	1	Trough, Timing Chain Lubricating.
15	(FM)20308-S7	1	Bolt, Timing Chain Lubricating Trough to Cylinder Block.
16	(FM)34805-S8	1	Washer, Lock - 1/4".

FIG. 5 - CRANKSHAFT GROUP

1	(FM)B9TE-6303-A	1	Crankshaft.
2	(FM)BB8A-6306-B	1	Sprocket, Crankshaft - 21 Teeth.
3	(FM)74175-S	1	Key, Woodruff - Sprocket to Crankshaft - 5/32" x 5/8".
4	185-27	1	Pulley, Crankshaft - (FM)EBV-6312-A.
5	(FM)74151-S	1	Key, Crankshaft Pulley to Crankshaft - 1/4 x 7/8".
6	(FM)EBV-63333-D	8	Bearing, Crankshaft Front, Front and Rear Intermediate and Rear Main - Standard Size - (Also available in .010", .020" and .030" Undersize - Specify).
7	(FM)B5A-63335-A	1	Retainer, Crankshaft Rear Oil Packing.
8	(FM)EBV-63337-D	2	Bearing, Crankshaft Center Main - Standard Size - (Also available in .010", .020", and .030" Undersize - Specify).
9	(FM)CIAF-6345-A	10	Bolt, Crankshaft Bearing Cap - 1/2"-13 x 2-7/8" - Replaces (FM)B4A-6345-A.
10	(FM)CIAE-63336-B	2	Seal, Crankshaft Rear Retainer - Replaces (FM)B4A-6348-A.
11	(FM)B6A-6350-A	2	Bolt, Crankshaft Rear Seal Retainer.
12	(FM)EAA-63378-A	1	Washer, Crankshaft Pulley.
13	(FM)CIAE-6700-B	1	Seal, Oil - Cylinder Front Cover - Replaces (FM)EAA-6700-B4.
14	(FM)B4Q-6701-A	2	Packing, Crankshaft Rear Oil - Replaces (FM)B4A-6701-A.
15	(FM)B4A-6375-B	1	Flywheel - Includes Ring Gear.

NOTE: Order Ford Parts from your local Ford Dealer, giving Part Number, description and complete Ford Engine Nameplate data.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 5 - CRANKSHAFT GROUP (Cont.)

16	(FMEA)A-6384-A	1	Gear, Flywheel Ring.
17	(FMC)354566-S8	1	Bolt, Crankshaft Pulley Retaining - 9/16"-18 x 1-1/2".
18	(FMB)6A-6310-B	1	Slinger, Oil - Crankshaft.
	(FMEA)A-6379-A	6	Bolt, Flywheel to Crankshaft.

FIG. 6 - VALVES, ROCKER ARMS AND RELATED PARTS GROUP

1	(FMEA)F-6505-D	8	Valve, Exhaust - Replaces (FM)B6T-6505-A.
2	(FMC)OTE-6507-E	8	Valve, Intake - Begin FORD Serial #101705SCR - Replaces (FM)COAE-6507-A.
2	(FMB)7A-6507-AA	8	Valve, Intake - Prior to FORD Serial #101705SCR.
3	(FMB)6A-6513-A	16	Spring, Valve.
4	(FMEA)M-6514-B	8	Retainer, Valve Spring. - Replaces (FM)B5Q-6514-A.
	(FMB)9A-6514-A	8	Intake - Replaces (FM)EBU-6514-B.
5	(FMB)HA-6518-A	16	Key, Valve Spring Retainer Lock - Intake.
5	(FMEA)M-6518-A	16	Key, Valve Spring Retainer Lock - Exhaust - Replaces (FM)B5Q-6518-A.
6	(FMB)8ED-6550-A	8	Cap, Valve Stem - Exhaust - Replaces (FM)B5Q-6550-A.
8	(FME)EBU-6531-A	8	Support, Valve Rocker Arm Shaft.
9	(FMC)IAE-6A527-B	12	Bolt, Rocker Arm and Shaft to Cylinder Head - 5/16"-18 x 2-1/4" - Replaces (FM)21250-S.
9	(FMC)CITE-6A527-C	4	Stud, Rocker Arm and Shaft to Cylinder Head - 5/16"-18 and 5/16"-24 x 3-3/4" - Replaces (FM)354527-S.
10			Nut - 5/16"-24 - Rocker Arm and Shaft to Cylinder Head Stud.
11	(FMB)33798-S8	4	Lockwasher - 5/16" - Rocker Arm and Shaft to Cylinder Head Stud.
12	(FMB)34806-S7	4	Screw, Valve Rocker Arm Adjustment.
13	(FMB)6A-6549-C	16	Locknut, Valve Rocker Arm Adjusting Screw - 7/16"-20 - Used on old type 2-piece assembly.
14	(FMEA)A-6552-A	16	Shaft, Valve Rocker Arm.
15	(FMEA)N-6563-A	2	Arm, Valve Rocker - Replaces (FM)COAE-6529-F.
16	(FMB)6A-6564-F	16	Rod, Valve Push - Prior to FORD Serial #101715CR.
17	(FMB)6A-6565-D	16	Rod, Valve Push - Begin FORD Serial #101715CR.
17	(FMC)OAE-6565-D	16	Rod, Valve Push - Begin FORD Serial #101715CR.

NOTE: Order Ford Parts from your local Ford Dealer, giving Part Number, description and complete Ford Engine Nameplate data.

PARTS LIST

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
18	(FM)B9A-6570-A	4	Grommet, Rocker Arm Cover Stud.
19	(FM)EAA-6572-A	4	Plug, Valve Rocker Arm Shaft.
20	(FME)BU-6575-A	2	Bracket, Valve Rocker Arm Oil Outlet Tube - 1-27/32" overall length.
21	(FMB)9AE-6583-E	2	Cover Assembly, Valve Rocker Arm.
22	(FM)554526-S8	4	Nut, Rocker Arm Cover to Cylinder Head.
23	(FM)354504-S8	4	Washer, Flat - 5/16" - Rocker Arm Cover to Cylinder Head.
24	(FM)COAZ-6A506-B	2	Gasket Kit, Rocker Arm Cover and Seal - Replaces (FM)B4A-6535-A.
25	(FMB)6A-6587-A	6	Spring, Valve Rocker Arm to Shaft Housing.
26	(FMB)5A-6588-A	2	Tube, Valve Rocker Arm Shaft Oil Outlet.
27	(FM)EAA-6589-B	2	Grommet, Valve Push Rod Cover Stud - Rubber.
28	(FM)EAA-6590-A	8	Washer, Valve Rocker Arm Shaft - Steel.
29	(FM)72035-S7	8	Pin, Cotter - 1/8" x 1".
30	(FME)AA-6598-A	4	Washer, Spring - Valve Rocker Arm Shaft.
31	(FMB)8C-6500-A	16	Tappet Assembly, Valve.
32	(FM)4722-S8	12	Washer, Flat - 5/16" - Rocker Arm Shaft Support to Cylinder Head.
33	(FMB)5A-6571-A	16	Seal, Valve Stem - Umbrella Type.
34	(FM)B9A-6517-A	16	Sleeve, Valve Spring - Exhaust and Intake.

FIG. 6 - VALVES, ROCKER ARMS AND RELATED PARTS GROUP (Cont.)

1	(FM)354727-S8	2	Screw and Washer Assembly - Oil Pump to Cylinder Block - 5/16"-18 x 1-3/8".
1	(FM)358805-S7	1	Screw and Washer Assembly - Oil Pump to Cylinder Block - 5/16"-18 x 1-1/4".
1	(FMB)9TE-6600-A	1	Pump Assembly, Oil - Prior to FORD Serial #10171S5CR.
1	(FM)CIAE-6600-A	1	Pump Assembly, Oil - Begin FORD Serial #10171S5CR - Replaces (FM)B9AE-6600-E.
1	(FMB)6Q-6670-B	1	Spring, Oil Pump Body Relief Valve.
3	(FMB)6Q-6670-B	1	Rotor and Shaft Assembly - Oil Pump Drive.
4	(FMB)6Q-66008-A	1	Cover and Inlet Tube Assembly, Oil Pump Screen - Prior to FORD Serial #10171S5CR.
6	(FMB)4C-6615-A	1	Cover and Inlet Tube Assembly, Oil Pump Screen - Begin FORD Serial #10171S5CR.
6	(FM)COTE-6615-A	1	

FIG. 7 - OIL PUMP AND OIL FILTER GROUP

1	(FMB)6Q-6670-B	1	Oil Pump Body Relief Valve.
1	(FMB)6Q-66008-A	1	Cover and Inlet Tube Assembly, Oil Pump Screen - Prior to FORD Serial #10171S5CR.
3	(FMB)6Q-6670-B	1	Cover and Inlet Tube Assembly, Oil Pump Screen - Begin FORD Serial #10171S5CR.
4	(FMB)4C-6615-A	1	
6	(FMB)COTE-6615-A	1	

NOTE: Order Ford Parts from your local Ford Dealer, giving Part Number, description and complete Ford Engine Nameplate data.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 7 - OIL PUMP AND OIL FILTER GROUP (Cont.)

7	(FM)354361-S	1	Nut, Cover - Inlet Tube to Oil Pan - 7/8"-16.
8	(FM)B9TE-6616-A	1	Plate, Oil Pump Body - Cover.
9	(FM)20324-S7	4	Bolt, Cover Plate to Body - 1/4"-20 x 5/8".
10	(FM)34805-S8	4	Lockwasher 1/4" - Cover Plate to Body Bolt.
12	(FM)B6Q-6619-A	1	Gasket, Oil Pump Cover.
13	(FM)EBZ-6622-B	1	Screen Assembly, Oil Pump - Replaces (FM)41A-6623-A.
14	(FM)B4A-6626-B	1	Gasket, Oil Pump Inlet Tube Fitting.
15	(FM)CIAE-6A616-A	1	Shaft Assembly, Oil Pump Intermediate - Replaces (FM)B9A-6A618-A
16	(FM)EAD-6628-A	1	Retainer, Oil Pump Screen.
17	526A164	1	Washer, Flat - Copper - Oil Drain.
18	(FM)B6Q-6659-A	1	Gasket, Oil Pump to Cylinder Block Mounting.
19	(FM)EAA-6666-A	1	Plug, Oil Relief Valve (In Pump Body) 5/8"-18.
20	(FM)8EL-6669	1	Gasket, Oil Relief Valve Plug (In Pump Body).
21	(FM)EAD-6673-A	1	Nut, Pump to Oil Pan Inlet Tube - 1"-18 Hex Special.
22	(FM)B6Q-6674-B	1	Plunger, Pump Body Relief Valve - Prior to FORD Serial #1017155CR.
22	(FM)B9AE-6674C	1	Plunger, Pump Body Relief Valve - Begin FORD Serial #1017155CR.
23	(FM)B4A-6698-A	1	Seal, Oil Pan to Oil Pump Inlet Tube - Rubber.
24	122P229	1	Element Assembly, Oil Filter - with Gaskets - Replaces 122P126..
25	(FM)EAA-6838-A	1	Gasket, Oil Filter.
26	(FM)EAA-6749-A	1	Cover, Oil Filter Center Bolt to Cover.
27	(FM)B8C-6737-A	1	Cover, Oil Filter.
28	(FM)B2A-6741-A	1	Bolt and Valve, Oil Filter Center.
29	(FM)B4A-6751-B	1	Diaphragm, Oil Filter.
30	(FM)B2A-6889-A	1	Spring, Oil Filter Element Retaining.
31	(FM)EAA-6890-C	1	Insert, Oil Filter Mounting Bolt.
32	(FM)B2A-6898-A	1	Retainer, Oil Filter Element.
33	505-39	1	Elbow, Pipe - 3/8" - Oil Drain.
34	505-101	3	Nipple, Close - 3/8" Pipe - Oil Drain.
35	504-30	1	Cock, Drain - 3/8" - Oil Drain.

NOTE: Order Ford Parts from your local Ford Dealer, giving Part Number, Description and complete Ford Engine Nameplate data.

PARTS LIST

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
36	505-131	1	Clamp, Hose - Oil Drain.
37	503-136	1	Hose, Oil Drain.
38	145A67	1	Nut, Lock - 3/8" Pipe - Oil Drain.

FIG. 7 - OIL PUMP & OIL FILTER GROUP (Cont.)

FIG. 8 - ENGINE VENTILATION SYSTEM & RELATED PARTS GROUP

1	(FM)B8P-6758-B	1	Tube Assembly, Crankcase Ventilation (Mounts on Side of Engine).
2	(FM)45518-S	2	Bolt, Tube to Cylinder Block.
3	(FM)34805-S8	2	Lockwasher - Tube to Cylinder Block Bolt.
4	(FMEAD-6841-A	1	Screen Assembly, Crankcase Ventilation.
5	(FM)COAZ-6870-A	1	Gasket, Crankcase Ventilation Cover - Replaces (FM)B7A-6870-A.
6	(FM)B4A-6872-A	1	Gasket, Crankcase Ventilation Adapter.
7	(FM)B5P-6869-A	1	Cover, Crankcase Ventilation.
8	(FM)B9T-6762-A	1	Tube, Crankcase Ventilation (Mounts on Valve Push Rod Cover).
9	(FM)B6A-6766-A	1	Cap, Crankcase Ventilation Tube.
10	123A473	1	Adapter, Oil Fill.
11	159A7	1	Cap, Oil Fill.
12	503-136	1	Hose, Breather Crankcase Ventilation.
13	503-131	2	Clamp, Breather Hose.

FIG. 9 - MUFFLER & MANIFOLD GROUP

1	155B456	1	Muffler, Exhaust.
2	154A349	1	Plate, Exhaust Manifold Cover.
3	155B418	1	Cover Assembly, Exhaust Outlet - (Optional equipment).

NOTE: Order Ford Parts from your local Ford Dealer, giving Part Number, description and complete Ford Engine Nameplate data.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
4	155C417	1	Adapter, Exhaust Outlet - (Optional equipment).
5	155B374	1	Cover, Exhaust Outlet - (Optional equipment).
6	155C486	1	Crossover Assembly, Exhaust Manifold - 1-7/8" Tubing.
7	154A472	3	Gasket, Exhaust Manifold - Crossover 2, Spacer 1.
8	155B467	1	Tube, Flexible Exhaust.
9	154P351	1	Gasket, Exhaust Manifold Cover.

FIG. 9 - MUFFLER & MANIFOLD GROUP (Cont.)

1	130D353	1	Radiator.
2	130P372	1	Cap, Radiator.
3	130D443	1	Shroud, Fan.
4	130C351	1	Guard, Fan - Left Hand.
5	130C352	1	Guard, Fan - Right Hand.
6	503A3	1	Hose, Radiator - Upper Tube - 1-1/2" x 1-7/8" x 2-1/2" Long.
6	503-289	1	Hose, Radiator - Upper Tube - 1-1/2" x 1-7/8" x 3-1/2" Long.
7	503B277	1	Hose, Radiator - Lower (Curved) - 1-3/4" x 2-1/8" Long.
8	516-40	2	Pin, Cotter - 1" x 3/32" - Mounting (Used on plants built before Feb. 1962).
9	130A348	1	Tube, Radiator - Upper.
10	503P129	4	Clamp, Hose - Upper.
11	503-287	2	Clamp, Hose - Lower.
12	130C356	1	Fan Assembly, Cooling - 6 Blade, Pusher Type.
13	511P40	1	Belt, Fan and Charge Generator - All models with basic 12-volt ignition system.
14	511P41	1	Belt, Governor and Water Pump - All models with basic 12-volt ignition system.
15	504-28	1	Valve, Radiator Drain - 3/8" pipe thread.
16	405P129	2	Cushion, Generator Mounting - Rubber.
			Prior to Spec "D".
	405P190	2	Begin Spec "D".
	403A630	2	Spacer, Generator Mounting Bolt.

NOTE: Refer to separate parts groups for optional City Water Cooling and for optional Water Cooled Manifolds used with radiator.

FIG. 10 - COOLING SYSTEM & MOUNTING CUSHION GROUP

PARTS LIST

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
18	402A10	2	Cushion, Engine Mounting - Rubber - Upper.
19	402A11	2	Cushion, Engine Mounting - Rubber - Lower.
20	402A12	2	Cup, Metal.
21	402-55	2	Bolt, Engine Mounting (Used on plants built before Feb. 1962).
21A	801-81	2	Screw, Hex Head - 7/16-20 x 3-1/2" (Replaces 402-55).
22	870-57	2	Nut, Castillated (Used on plants built before February 1962).
22A	870-68	2	Nut, Huglock - 7/16-20 (Replaces 870-57).
23	526-32	2	Washer, Flat Steel - Mounting.
24	403A633	2	Spacer, Mounting (Used with 801-81 Mounting Screw).
25	526-141	2	Washer, Steel - (Used with 801-81 Mounting Screw).
	870-113	6	Nut, Tinnerman Speed Grip - 5/16-18 - Radiator to Panel (Appears also in Housing Group)

FIG. 10 - COOLING SYSTEM & MOUNTING CUSHION GROUP (Cont.)

FIG. 11 - STARTING MOTOR & BATTERY CHARGING GENERATOR GROUP

1	191P272	1	*Motor, Starting - 12 Volt - Spec "A" Models only (Delco Remy #1108177) For Replacement use 191A292 Starter and #191B301 Relay Assembly.
1A	191A292	1	Begin Spec "B" (Delco Remy #1107764).
1B	191B301	1	Relay Assembly, Start - Begin Spec "B" (Includes bracket plus wires and hardware).
1B	191P293	1	Relay Only, Start - Begin Spec "B" (Included in #191B301 Assembly).
1C	307A546	1	Bracket, Start Relay - Begin Spec "B" (Included in #191B301 Assembly).
2	191A273	1	Spacer, Starting Motor.
3	191D251	1	*Generator, Battery Charging - Less Pulley and Fan - (Delco Remy #1102044) - 12 Volt.
4	520A453	2	Stud, Starter Mounting.
5	191B102	1	Bracket, Charging Generator Mounting - Blower End.
6	191B104	1	Bracket, Charging Generator Mounting.
7	191B103	1	Strap, Adjusting.
8	191B274	1	Pulley, Battery Charging Generator - (Delco Remy #1911985).
9	191B228	1	Regulator, Charge - 12 Volt - (Delco Remy #11109001).
10	416A49	1	Cable, Battery Positive.
10	416A18	1	Cable, Battery Ground.
11	336A1016	1	Lead, Charge Generator to Charge Regulator - 8-3/4" Cut Length.

* - Order component parts from your local dealer, giving complete information from manufacturers nameplate.

FIG. 11 - STARTING MOTOR & BATTERY CHARGING GENERATOR GROUP (Cont.)

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
11	336A1017	1	Lead, Choke to Charge Regulator - 39-1/2" Cut Length.
12	232A234	1	Spacer, Generator Mounting.
13	191P253	1	Fan, Generator Pulley.
14	312A15	2	Condenser, Suppression - Charge Generator ARMATURE and Charge Regulator BATTERY.
	336A1047	1	Lead, Charge Generator Armature.
	336A1082	1	Lead, Overspeed Governor Switch.

FIG. 12 - IGNITION GROUP

1	166B278	1	Coil, Ignition - 12 Volt.
2	312A15	1	Condenser, Ignition Coil.
3	166B279	1	Bracket, Ignition Coil Mounting.
4	166A286	1	Screw, Coil Mounting Bracket.
	(FM)B8TZ-12000-A	1	Repair Kit, Distributor - Includes items marked (†) and (*) - Prior to FORD Serial #10171S5CR.
	(FM)B7AZ-12000-A	1	Repair Kit, Distributor - Includes items marked (†) and (*) - Begin FORD Serial #10171S5CR.
5	185-89	1	† Point Set, Distributor - (FM)B7A-12171-A.
6	185-93	1	† Rotor, Distributor - (FM)B7A-12200-A.
7	(FM)B9TF-12300-A	1	# * Condenser, Distributor - Replaces (FM)B9AF-12300-A.
8	(FM)B7A-12106-A	1	Housing Assembly, Distributor Terminal.
9	(FM)B8QH-12120-A	1	Bushing, Distributor Housing - Upper.
	(FM)COTF-12127-B	1	Distributor Assembly - Less Terminal Housing and Rotor. - Begin FORD Serial #10171S5CR.
	(FM)B9TF-12127-B	1	Distributor Assembly - Less Terminal Housing and Rotor. - Prior to FORD Serial #10171S5CR.
10	(FM)B-10141-A	1	Cup, Oil - Distributor.
11	(FM)B9AF-12264-A	1	Wire Assembly - Distributor Breaker Ground.
12	(FM)FAA-12270-A	1	Clamp, Distributor to Cylinder Head.
13	(FM)FAC-12111-A	1	Bracket, Ignition Cable Mounting - Right Hand.
14	(FM)FAC-12112-A	1	Bracket, Ignition Cable Mounting - Left Hand.
15	(FM)FAA-12297-C	2	Grommet, Ignition Cable - Through Mounting Bolt - 4 Holes in Straight Line.

NOTE: Order Ford Parts from your local Ford Dealer, giving Part Number, description and complete Ford Engine Nameplate data.

PARTS LIST

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 12 - IGNITION GROUP (Cont.)

16	(FM)FAA-12112-A	2	Bracket, Ignition Cable Mounting.
17	(FM)FAA-12297-A	2	Grommet, Ignition Cable - Through Mounting Bracket - 4 Holes in Square.
18	(FM)FDS-12113-A	10	Seal, Wire Terminal Weather - (8) Spark Plug Wire to Distributor (2) Distributor to Coil Replaces (FM)2N-12113
19	(FM)B7A-12259-B	1	Wire Set, Spark Plug - Includes (8) Spark Plug Wires and (10) Weather Seals.
20	(FM)B5A-12289-A	4	Shield, Spark Plug Ignition Wire.
21	(FM)FAA-12361-A	1	Clamp, Distributor to Spark Wiring Mounting Bracket.
22	167-134	8	Plug, Spark.
23	167A1290	1	Lead, Coil to Distributor.
24	314-156	8	Suppressor, Spark Plug.
25	314-6	1	Suppressor, Distributor.
26	518-175	1	Plug, Distributor Closure.
27	508-65	1/2 inch	Plug, Soft Rubber - Distributor Hole.

NOTE: Order Ford Parts from your local Ford Dealer, giving Part Number, description and complete Ford Engine Nameplate data.

FIG. 13 - GOVERNOR PARTS GROUP

NOTE: Parts in this group prefixed by (HOF) are HOOF part numbers.

1	151C181	1	Governor, Complete with Pulley - (HOF) #BD466 (Prior to April 1962) Order Governor #151C203
	151C203	1	(HOF) #BD466A (Beginning April 1962 - Replaces 151C181)
2	(HOF)D164-539	1	Body Assembly - Includes body, bearings, rocker shaft and throttle lever
3	(HOF)D105-67	1	Lever, Rocker
5	(HOF)D114-163	2	Screw, Lever to Shaft
6	151B150	1	Bracket, Governor Mounting
7	(HOF)D114-133	1	Screw, Speed Adjusting
8	(HOF)D115-29	2	Nut, Adjusting Screw Lock

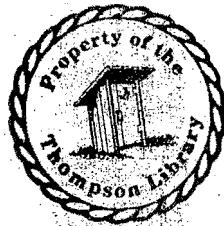
FIG. 13 - GOVERNOR PARTS GROUP (Cont.)

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
9	(HOF)D105-292	1	Lever Assembly, Speed Adjusting -
	(HOF)D105-326	1	(HOF) #BD466 Governor Only
10	(HOF)D129-18	1	(HOF) #BD466A Governor Only
11	(HOF)D117-87	1	Bushing, Adjusting Lever Pivot
12	(HOF)D114-179	1	Lockwasher, Adjusting Lever to Body
13	(HOF)D105-127	1	Screw, Adjusting Lever to Body
14	(HOF)D117-46	1	Link, Spring
15	(HOF)D117-87	1	Washer, Sensitivity Screw
16	(HOF)D110-57	1	Lockwasher, Sensitivity Screw
17	(HOF)D132-83	1	Spring, Speed Adjusting - 120 # Rate
18	(HOF)D165-18	1	Screw, Sensitivity Adjusting
19	(HOF)D164-540	1	Retainer, Link to Sensitivity Adjusting Screw
20	(HOF)D164-221	1	Shaft Assembly, Main - Complete
	(HOF)D164-718	1	Shaft and Yoke Assembly, Main -
21	(HOF)D164-393	1	(HOF) #BD466 Governor Only
22	(HOF)D164-476	2	(HOF) #BD466A Governor Only
23	(HOF)D132-88	2	Bearing and Sleeve Assembly, Thrust
	(HOF)D132-148	2	Flywheel and Bearing Assembly
24	(HOF)D156-32	4	Pin, Flywheel Pivot -
	(HOF)D156-56	4	(HOF) #BD466 Governor Only
25	(HOF)D133-22	1	(HOF) #BD466A Governor Only
	(HOF)D133-3	1	Retainer, Flywheel Pivot Pin -
26	(HOF)D132-43	1	(HOF) #BD466 Governor Only
27	(HOF)D107-68	1	(HOF) #BD466A Governor Only
28	(HOF)D164-528	1	Bearing, Front Main -
	(HOF)D164-719	1	(HOF) #BD466 Governor Only
			Cover and Seal Assembly -
			(HOF) #BD466 Governor Only
			(HOF) #BD466A Governor Only

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 13 - GOVERNOR PARTS GROUP (Cont.)

28A	(HOF)D108-3 (HOF)D108-24	1 1	Seal, Oil - Cover (Contained in D164-528 Assembly) (HOF) #BD466 Governor Only (HOF) #BD466A Governor Only
29	(HOF)D174-105 (HOF)D174-105A (HOF)D117-60 (HOF)D114-63	1 1 4 4	Pulley, Drive - (HOF) #BD466 Governor Only (HOF) #BD466A Governor Only Lockwasher, Cover to Body Screw, Cover to Body
31	(HOF)D165-22 Describe	1 1	Retainer, Main Bearing to Cover - (HOF) #BD466 Governor Only (HOF) #BD466A Governor Only
32	(HOF)D165-21 (HOF)D165-36 (HOF)D133-14 (HOF)D110-94	2 2 1 1	Retainer, Main Bearing to Shaft - (HOF) #BD466 Governor Only (HOF) #BD466A Governor Only Bearing, Rear Main Spring, Throttle Lever Tension - (at joint)
33	(HOF)D183-3 (HOF)D183-2	1 1	Oiler -Inlet - (HOF) #BD466 Governor Only (HOF) #BD466A Governor Only
36	(HOF)D183-4 (HOF)D183-1 (HOF)D120-11 (HOF)D117-85	1 1 1 1	Oiler -Outlet - (HOF) #BD466 Governor Only (HOF) #BD466A Governor Only Tag, Oil Level - "MAINTAIN OIL LEVEL" attached at outlet Washer, Spring Link Spacing
37	(HOF)D150A638 520A537	2 1	Joint, Ball Stud - 1/4" x 9-3/8" Long
38	(HOF)D150A638 520A537	2 1	
39	(HOF)D117-85	1	
40	150A638	2	
41	520A537	1	



REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 14 - ANTI-DIESELING CONTROL GROUP (GASOLINE FUELED PLANTS)			
1	307B259	1	Solenoid - Includes Lead and Plunger - (See NOTE).
2	145A164	1	Arm Solenoid Extension.
3	516-103	1	Pin, Roll.
4	516-86	1	Arm to Solenoid - Prior to Spec "C" (1/8 x 1/2").
5	526A8	1	Cam to Solenoid - Begin Spec "C" (1/8 x 3/4").
6	142-113	1	Washer, Flat - Solenoid Extension Arm Spacing.
7	516-39	1	Swivel, Linkage to Solenoid Extension Arm.
8	815-104	1	Pin, Cotter-Hair Pin Type.
9	145A166	1	Screw, Fillister Head - #8-32 x 5/16".
10	145A165	2	Link, Wire - Anti-dieseling Control to Carburetor.
11	803-2	2	Stop, Wire - Excludes Set Screw.
12	145A163	1	Screw, Set - Socket Head - #8-32 x 3/16".
13	145A158	1	Arm, Throttle Over-ride - Slotted.
14	150A96	1	Spring, Throttle Over-ride.
15	145A120	1	Stud, Adjusting - Over-ride Spring.
16	145A144	1	Gasket, Solenoid Mounting Bracket - Lead material necessary to avoid carburetor icing.
17	145C146	1	Bracket, Over-ride Spring Mounting.
18	815-110	1	Bracket, Solenoid Mounting.
19	309A42	1	Screw, Fillister Head (#10-32 x 7/8") Throttle Shaft Adjusting.
20	309P133	1	Switch, Micro - Begin Spec "C".
21	309A132	1	Actuator, Micro Switch - Begin Spec "C".
22	309A131	1	Cam, Micro Switch - Begin Spec "C".
23	504P4	1	Bracket, Micro Switch - Begin Spec "C".
24	502-3	1	NOTE: Use a tooth type washer to mount each part to provide good electrical ground to engine.

FIG. 15 - FUEL SYSTEM GROUP (GASOLINE)

1	140D379	1	NOTE: Refer to separate group for Carburetor.
2	159D490	1	Cleaner, Air.
3	159B512	1	Tank, Fuel - Mounted, 20 U.S. Gallons - Optional Equipment for Housed Plants only.
4	504P4	1	Cap and Indicator, Mounted Fuel Tank.
5	502-3	1	Valve, Fuel Shut-off - Use with Mounted Tank.
			Connector, Inverted Male - 200x4 - Use with Mounted Tank.

PARTS LIST

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
6	501B10	1	Line, Flexible Fuel - 42" - Mounted Tank to Pump.
7	169D489	1	Strap, Mounted Tank Hold Down - appears also in Housing Group.
	505-12	1	Plug, 1/8 Pipe - Fuel Tank.
	416A96	1	CLIP, Fuel Line.
	502-2	1	Elbow, Inverted Male - 1/4" Fuel Line.

FIG. 15 - FUEL SYSTEM GROUP (GASOLINE) Cont.

NOTE: Parts in this group prefixed by (Z) are ZENITH part numbers.

141C627	1	Carburetor - Zenith - with 12 Volt Electric Choke - For Gasoline Fuel only - Includes Ref. 1 thru 62 - If optional "Day" tank is used, order also larger Fuel Valve & Seat #141-318.
141-563	1	Kit, Repair Parts - Includes Parts marked *.
(Z)C181-300	1	Kit, Gasket - Includes Parts marked †.
(Z)C36-3	2	*Screw, Choke Plate.
2	141-532	Plate, Choke.
3		Body, Air Intake - Not sold separately.
4	(Z)CR9-26	Bushing, Shaft Thrust.
5	141-533	Head, Filter.
6	141-534	*† Washer, Filter Head Fibre.
7	(Z)C105-37	Shaft, Choke.
8	141-566	Element, Fuel Filter.
9	141-537	*Screw, Intake Assembly.
10	141A77	*† Washer, Valve Seat Fibre.
11	141-323	*Valve and Seat, Fuel (Not used with optional Day Tank).
11	141-318	Valve and Seat, Fuel (Models with optional Day Tank).
12	141-8	Needle, Idle Adjusting.
13	141-9	Spring, Adjusting Needle.

FIG. 16 - CARBURETOR GROUP (GASOLINE) Cont.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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14	141-199	1	*† Washer, Channel Plug Fibre.
15	(Z)C138-5	1	Plug, Vacuum Cylinder Channel.
16	141-535	1	Float - Gasoline Fuel only.
17	141-72	1	*Axle, Float (Replaces Axle #141-206).
18	141-536	1	*† Gasket, Intake to Bowl.
19	141-544	1	Plug, Power Jet Valve Channel.
20	(Z)C56-3-12	1	*Jet, Idle.
21	141-542	1	Plug, Accelerator Jet Passage.
22	141-541	1	Jet, Accelerator (Blank).
23	141-556	1	*Jet, Well Vent.
24		x	Bowl, Fuel - Not sold separately.
25	141-546	2	*Screw, Bowl Assembly.
26	141-540	1	*Bushing, Idle Channel.
27	141-632	1	Venturi - Gasoline Fuel only.
28	141-539	4	*Plug, Bowl Channel.
29	141-70	1	Plug, Bowl Drain - 1/8".
30	(Z)C66-70-1-80	1	Jet, Discharge.
31	141A77	1	*† Washer, Adjustment Fibre.
32	(Z)C71-26-38	1	Jet and Adjustment, Main.
33	141-545	1	*† Gasket, Bowl to Throttle Body.
34	810-41	2	*Screw, Throttle Plate - (Replaces 141-68) - (Z)T15B5-3.
35	853-3	2	*Lockwasher, Plate Screw - (Replaces 141-38L).
36	141-551	1	Plate, Throttle.
37	141-669	1	Body Assembly, Throttle (Body not sold separately) - (Z)B12-87C-1.
38	141-580	2	Washer, Oil Retainer - Inner - (Z)CT57-3.
39		1	Bearing, Needle - Rear - Order 141-669 Throttle Body Assembly.
40		1	Bearing, Needle - Front - Order 141-669 Throttle Body Assembly.
41	141-581	1	Seal, Throttle Shaft - Front - (Z)CT48-9.
42		1	Washer, Seal Retainer - Front - Order 141-669 Throttle Body Assembly.
43		1	Shaft, Throttle - Order 141-669 Throttle Body Assembly.
44		1	Lever, Throttle Stop - Order 141-669 Throttle Body Assembly.

PARTS LIST

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 16 - CARBURETOR GROUP (GASOLINE) Cont.

45	141-255	1	Spring, Stop Screw.
46		1	Screw, Lever Stop - Order 141-669 Throttle Body Assembly.
47	(Z)CT63-2	1	Shaft and Stop Lever Assembly, Throttle - Order 141-669 Throttle Body Assembly.
48	141-2	1	Taper Pin, Stop Lever.
49	(Z)C24-7DGX2	1	Lever, Throttle Clamp.
50	145A120	1	Gasket, Lead - Throttle Body to Carburetor Adapter - NOT included in Carburetor Repair Kit.
51		1	Order separately. Lead material necessary to avoid icing condition.
51A	141-599	1	Choke Assembly, 12 Volt Electric - With Vacuum Over-ride.
52	141-592	1	*† Gasket, Choke Housing to Carburetor Intake Body.
53	(Z)C163-15A	1	Housing, Choke.
54	(Z)C138-44	1	Plug, Vacuum Cylinder - Choke.
55	(Z)C35-17	1	Piston and Rod Vacuum - Choke.
56	(Z)T43-104	1	Lockwasher, Shaft Nut - Choke.
57	(Z)T255-1	1	Nut, Choke Shaft.
58	(Z)C140-36	2	Screw, Choke Housing.
59	(Z)T44-6	1	Plate, Housing Baffle - Choke.
60	141-591	1	*† Insulator, Housing - Cork - Choke.
61	141-646	1	Cover and Element, Choke - 12 Volt.
62	(Z)C140-12	3	Screw, Cover Assembly - Choke.
63	148B327	1	Adapter, Carburetor to Manifold.
64	141A372	1	Knob, Choke Shaft.
65	149A613	1	Line, Fuel Pump to Carburetor.
66	145A156	1	Gasket, Carburetor Adapter to Manifold.
67	520A11	4	Stud, Carburetor Adapter Mounting.
68	502-2	1	Elbow, Inverted Male - Not used with "Day" Tank.
70	520A118	2	Stud, Carburetor to Adapter Mounting - 3/8 x 1-1/2".
	141-543	1	Plug, Pump Rod Channel.

REF. PART QUANT.
NO. NO. USED

DESCRIPTION

FIG. 17 - SPECIAL FUEL SYSTEM GROUP (COMBINATION GAS-GASOLINE) and (GAS ONLY)

NOTE: For carburetor parts not shown in this group, refer to parts in Gasoline Carburetor Group. Plumbing and hardware parts special for LPG fueled units are not listed.

1	148B441	1	Adapter Assembly, Choke - Includes shaft, Plate and Counterweight (Replaces #148B214) - Prior to Spec "C", Counterweight, Choke - Spec "A" Models only. Spec "B" Models only.
2	148A171	1	Cleaner, Air - Prior to Spec "C".
	148A440	1	Cleaner, Air - Prior to Spec "C".
3	140B62	1	Begin Spec "C".
3A	140C379	1	Bracket, Air Cleaner Mounting - Prior to Spec "C".
4	140B393	1	Band, Air Cleaner - Prior to Spec "C".
4A	140A80	2	Hose, Air Cleaner - 2 1/4" x 4" - Prior to Spec "C".
5	503P151	4 inches	Hose, Air Cleaner (Replaces 140A395) - Prior to Spec "C".
6	145A253	1	Horn, Air Cleaner (Thin - Bowl to Gas Adapter).
7	148A198	1	Gasket, Thin - Air Cleaner Hose (Replaces #503-44) - Prior to Spec "C".
8	503-274	2	Clamp, Air Horn to Choke Adapter Assembly - Prior to Spec "C" - Use with Metal Air Horn - 2-3/8".
8	503-274	1	Use with Rubber Air Horn - 2-5/8".
9	148A272	1	Tube, Gas Inlet - Hose Connections.
10	141C629	1	Carburetor Assembly, Combination Gas-Gasoline - With 12 volt Electric Choke - Excludes Choke. Adapter and Carburetor to Manifold Adapter (Includes parts marked \blacktriangle and \dagger)
10	141C644	1	Carburetor Assembly, GAS ONLY (Includes parts marked \dagger and \star)
11	504-7	1	\blacktriangle Cock, Shut off.
12	148A135	1	\blacktriangle Lock, Carburetor Float - Not needed - Replace with 141-70 Plug.
13	141A372	1	\blacktriangle Knob, Choke Shaft.
14	148B261	1	\dagger Adapter Assembly, Gas - Includes Adjusting Screws and Hose Connection.
15	148C248	1	\dagger Adapter, Gas - Less Adjusting Screws and Hose Connection.
16	148B327	1	Adapter, Carburetor to Intake Manifold.
16A	145A158	1	Gasket, Adapter to Manifold.
17	145A120	1	Gasket, Throttle Body to Adapter.
18	148A17	1	\blacktriangle Gasket, Bushing - Float Lock.
19	148-115	1	Regulator, Gas Pressure.
19A	148A100	1	Converter, LPG (Used with Heat Exchanger)
20	505-4	1	Nipple, Pipe Close (Gas Intake) 1".

PARTS LIST

FIG. 17 - SPECIAL FUEL SYSTEM GROUP (COMBINATION GAS-GASOLINE) and (GAS ONLY) Cont.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
21	605-41	1	Elbow, Pipe (Gas Intake) 1" x 90°.
22	505-147	1	Nipple, Pipe (Gas Intake) 1" x 3-1/2".
23	505-128	1	Bushing, Pipe Reducer (Gas Outlet) 1-1/4" x 3/8".
24	505-101	1	Nipple, Pipe Close (Gas Outlet) 3/8".
25	505-39	1	Elbow, Pipe (Gas Outlet) 3/8" x 90°.
26	505-135	1	Nipple, Pipe - Half (Gas Outlet) 3/8".
27	503P188	As Req.	Hose, Rubber - Gas and L.P.G. Fuel or Water (Specify length when ordering).
28	503-197	2	Clamp, Hose - Gas Regulator to Carburetor Hose (Quantity is 6 for L.P.G. Fuel).
29	148A107	1	Vent, Regulator.
30	148A274	1	Bracket, Hose Mounting.
31	141A545	1	*Gasket, Thick - Gas Adapter to Throttle Body.
32	307P615	1	Primer Assembly, Solenoid - Begin Spec "C".
33	308P5	1	Switch, Fuel Selector - Gas or Gasoline - Use began during Spec. "B".
34	308-150	1	Plate, Fuel Selector Switch - Use began during Spec "B".
35	306A155	1	Bracket, Fuel Selector Switch Mounting.
	505-8	1	*Plug, 1/8" Pipe - Gas only Carburetor Inlet.
	141A628	1	*Venturi, Carburetor - With entry holes for gas fuel.
	141-645	1	*Lever, Throttle - GAS only and L.P.G. fueled units.
	141A493	1	Afloat, Carburetor - With provision for Float Contact.
	148B240	1	Bracket, Converter Mounting - For L.P.G. fueled units.
	148A287	1	Bracket, Converter Mounting ("7" long Angle Iron) For L.P.G. fueled units.
	148A333	1	Brace, Converter Mounting - For L.P.G. fueled units.
	307P366	1	Valve Solenoid - L.P.G. Fuel Supply Line.
	148A309	2	Spacer, Converter Mounting Bracket.
	149P625	1	Filter, L.P.G. Fuel - 1/4" Pipe - L.P.G. Fuel Supply Line.
	336A1299	1	Lead, Starter to Solenoid Primer Assembly.

FIG. 17 - SPECIAL FUEL SYSTEM GROUP (COMBINATION GAS-GASOLINE) and (GAS ONLY) Cont.

FIG. 18 - FUEL PUMP GROUP

(FM)B9TE-9350-A	1	Pump Assembly, Fuel - Complete.
(FM)B8A-9349-C	1	Repair Kit, Fuel Pump - Includes indented parts marked *.
(FM)B7A-9352-A	2	*Valve.
(FM)B7A-9364-A	1	*Gasket, Bowl.
(FM)B5A2-9A358-A	1	*Diaphragm, Pulsator - Replaces (FM)B5A-9370-A.
* - Supplied in Repair Kit only - Not sold separately.		

NOTE: Order Ford Parts from your local Ford Dealer, giving description of part and complete Ford Engine Nameplate data.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
4	(FM)B5A-9378-A	1	*Pin, Rocker Arm.
5	(FM)B5A-9469-A	1	*Seal, Oil.
6	(FM)B5A-9398-C	1	*Diaphragm, Assembly.
7	(FM)B5A-9417-A	1	Gasket, Mounting.
8	(FM)B5A-9379-A	2	*Plug, Rocker Arm Pin.
9	(FM)B8S-9380-A	1	*Spring, Rocker Arm Return.
10	(FM)B5A-9381-A	1	*Link, Rocker Arm.
11	(FM)B8A-9396-A	1	*Spring, Diaphragm.
12	(FM)49B-9408	2	*Gasket, Diaphragm Oil Seal.
13	(FM)B7A-9468-A	1	*Retainer, Oil Seal.
14	(FM)B7A-9366-A	1	Gasket, Strainer.
15	(FM)B5A-9376-D	1	Arm Assembly, Fuel Pump Rocker.
15	(FM)B7A-9365-B	1	Strainer Assembly.
16	(FM)B5A-9355-A	1	Bowl, Glass - Fuel Pump Filter.
17	(FM)31628-S7	10	Screw, Fuel Pump Body Attaching.
18	(FM)34803-S7	10	Lockwasher - #10.
19	(FM)EAA-9387-A	1	Ball Assembly, Fuel Pump Filter Bowl.

* - Supplied in Repair Kit only - Not sold separately.

NOTE: Order Ford Parts from your local Ford Dealer, giving Part Number, description and complete Ford Engine Nameplate data.

FIG. 18 - FUEL PUMP GROUP (Cont.)

FIG. 19 - RESERVOIR "DAY" TANK (OPTIONAL EQUIPMENT)

1	502-82	1	Nipple, Hex - 1/8" - Solenoid to Tank - Begin Spec "B".
2	159B294	1	Tank, Reservoir ("Day" or "Standby") 1 quart.
3	159A121	1	Band, Tank Mounting.
4	159B302	1	Bracket, Tank Mounting (not used on unhoused plants).
5	502-24	2	Elbow, Male Compression (1) Tank to Vent. Spec "A" Models, (1) Tank Inlet, (1) Tank Outlet begin Spec "B".
6	505-17	1	Bushing, Pipe Reducer - 3/8" to 1/4" - Tank to Return Line - Spec "A" Models only.
7	504A39	1	Cock, Tank Shut-off - With Strainer - Spec "A" Models only.
8	505-57	2	Plug, Pipe - Reservoir Tank - 1/8" (Replaces #505-12) - Note: Spec "A" Models use 1 only.

PARTS LIST

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
9	800-5	2	Screw, Tank Mounting Band - 1/4"-20 x 3/4"
10	862-1	2	Nut, Tank Mounting Band Screw - 1/4-20.
11	850-40	2	Lockwasher, Tank Mounting Band Screw - 1/4" Medium.
12	502-116	1	Connector, Vent Line Compression - With Nut and Sleeve - 1/8" Pipe Thread - Spec "A"
13	505-28	1	Coupling, Vent Line - 3/8" - Spec "A" Models only.
14	505-16	1	Bushing, Vent Line Reducer - 3/8" to 1/8" - Spec "A" Models only.
15	159A345	1	Tubing, Copper - Vent Line (12 feet x 5/16" O.D.) - Spec "A" Models only.
16	159-41	1	Cap, Tank Vent - Spec "A" Models only.
17	415A55	1	Bracket, Vent Cap - Spec "A" Models only.
18	149C610	1	Line, Reservoir Tank to Pump - 5/16" x 41-1/4" Cut Length (Copper Tubing).
18	149A609	1	Line, Reservoir Tank to Carburetor - 5/16" x 9-3/8" Cut Length (Copper Tubing).
19	141-338	1	Valve and Seal, Fuel - Carburetor - Size 50 displaces size 40 for full power with Day Tank.
20	159A704	1	Reducer, Restricted - Reservoir Tank Return Outlet - Begin Spec "B".
21	307P565	1	Valve, Solenoid - Reservoir Tank - Begin Spec "B".

FIG. 19 - RESERVOIR "DAY" TANK (OPTIONAL EQUIPMENT) Cont.

9	800-5	2	Screw, Tank Mounting Band - 1/4"-20 x 3/4"
10	862-1	2	Nut, Tank Mounting Band Screw - 1/4-20.
11	850-40	2	Lockwasher, Tank Mounting Band Screw - 1/4" Medium.
12	502-116	1	Connector, Vent Line Compression - With Nut and Sleeve - 1/8" Pipe Thread - Spec "A"
13	505-28	1	Coupling, Vent Line - 3/8" - Spec "A" Models only.
14	505-16	1	Bushing, Vent Line Reducer - 3/8" to 1/8" - Spec "A" Models only.
15	159A345	1	Tubing, Copper - Vent Line (12 feet x 5/16" O.D.) - Spec "A" Models only.
16	159-41	1	Cap, Tank Vent - Spec "A" Models only.
17	415A55	1	Bracket, Vent Cap - Spec "A" Models only.
18	149C610	1	Line, Reservoir Tank to Pump - 5/16" x 41-1/4" Cut Length (Copper Tubing).
18	149A609	1	Line, Reservoir Tank to Carburetor - 5/16" x 9-3/8" Cut Length (Copper Tubing).
19	141-338	1	Valve and Seal, Fuel - Carburetor - Size 50 displaces size 40 for full power with Day Tank.
20	159A704	1	Reducer, Restricted - Reservoir Tank Return Outlet - Begin Spec "B".
21	307P565	1	Valve, Solenoid - Reservoir Tank - Begin Spec "B".

FIG. 20 - GENERATOR GROUP (Alternator Portion)

1	★ 205B68	1	Rotor Assembly, Wound - Includes Bearing, Blower and Drive Assembly.
2	510P63	1	Blower, Generator (Replaces #205B54).
4		1	Bearing, Ball - Rotor.
5	★ 212C248	1	Stator Assembly, Wound.
6	212B1105	1	Rig Assembly, Brush - Includes Brushes and Springs (Does not include Condenser).
7		4	Spring, Brush.
8	214A56	4	Brush, Slip Ring.
10	150A717	1	Switch Assembly, Overspeed - Rotating member - See Exciter Group for stationary member.
13	232B1254	2	Cover, End Bell Opening - Plain.

* Order by description, giving Model, Spec and Serial Number (ONAN Nameplate).

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
14	232B1253	2	Cover, End Bell Opening.
15	232C1260	1	Scroll, Air.
16	231D66	1	Adapter, Engine to Generator.
17	211E131	1	Bell, End - Exciter to Alternator.
18			Band, Generator
	232C1204	1	1 Phase - Prior to Spec D.
	232C1193	1	3 Phase - Prior to Spec D.
	232C1209	1	1 Phase - Beginning Spec D.
	234C167	1	3 Phase - Beginning Spec D.
19	232A1186	1	Holder, Bearing - Anti-Rotation.
20	232A1187	1	Spring, Bearing Holder - Anti-Rotation.
	520A528	6	Stud, Adapter to Stator.
	232A1238	6	Screw, Rotor Drive Disc to Flywheel - 5/16-18 x 1".

FIG. 20 - GENERATOR GROUP (Alternator Portion) Cont.

1	234D59	1	Cover, Exciter.
	234D106	1	Spec "A" Models.
2	520A575	3	Begin Spec "B".
3	234D100	1	Stud, Exciter Cover Mounting.
	234D105	1	Panel Only - Exciter.
4	305B212	1	Spec "A" Models.
5	305A244	4	Begin Spec "B".
7	150A733	1	Rectifier Assembly, Power (Complete) Includes four #305-244 plus wire and hardware.
8	150A772	1	Rectifier Only, Power (Field) Included in #305B212 Assembly (Replaces #305-211).
9	508-18	2	Bracket Only, Overspeed Switch.
	508-29	1	Contact Point Screw, Overspeed Switch (Replaces #232A1365).
10	315A49	1	Washer, Fiber Insulating - Voltage Control Reactor.
	315A74	1	1/4 x 3/4 x 1/16".
			1/4 x 3/8 x 1/32".
			Reactor, Voltage Control - Does not include terminal block.
			Spec "A" Models.
			Begin Spec "B".

FIG. 21 - GENERATOR GROUP - Static Exciter Portion (Model 102SX)

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 21 - GENERATOR GROUP - Static Exciter Portion (Model 102SX) Cont.

11	332A622 332A687	1 1	Block, Terminal - Voltage Control Reactor - Spec "A" Models. Begin Spec "B".
12	305B202	1	Rectifier Assembly, Resistor and - Includes part marked (†) plus wire and hardware.
13	234B60	2	† Bracket, Gate Reactor Mounting (Note: 1 only included with #305B202 Assembly).
14	304A5	1	† Resistor, Control - Adjustable (150 Ohm, 25 Watt) 9/16" x 2".
15	520A579	2	† Stud, Resistor and Rectifier Mounting - 5-3/4" Long (Note: 1 only included with #305B202 Assembly).
16	232A1473	2	† Spacer, Adjustable Resistor and Rectifier to Stud (3/8" O.D. x 3/16 x 7/32" Long).
17	304A14	2	† Washer, Centering - Adjustable Resistor Mounting.
18	305-208	4	† Rectifier, Regulator (Control).
19	315A57	2	Reactor, Gate.
20	234B62	2	Retainer, Gate Reactor.
21	232A1361	2	Shud, Gate Reactor Mounting.
22	304A21	1	Resistor, Fixed - 3/4 x 4" - 200 Ohm, 50 Watt - Alternator Field (Damping).
23	304A15	2	Washer, Centering - Fixed Resistor Mounting.
24	332A604	1	Block, Terminal - 5 Place.
25	332A678	1	Strip, Block Marker - 5 Place Block.
26	312A17	1	Condenser - 0.5 Mid. - With Left Hand Bracket - Spec "A" Models only.
27	312A27	1	Condenser - 0.5 Mid. - With Right Hand Bracket - Spec "A" Models only.
28	232A1051	4	Insulation, Gate Reactor to Mounting Bracket (1-1/4 x 1-5/8 x 1/8").
29	895-70	4	Describe
30	232A1174	2	Insulation, Reactor Mounting, (6) Gate Reactor, (2) Control Reactor - SPECIFY Size Required.
31	332A537	1	Spacer, Fixed Resistor to Stud (3/8" O.D. x 3/16" I.D. x 11/32" Long).
32	332A686	1	Block, Terminal - 4 Place - Begin Spec "B".
			Strip, Block Marker - For 4 place Block - Begin Spec "B".

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 22 - LOWER CONTROL PANEL GROUP (Engine Instruments)

1	301C1608	1	Panel only, Lower
	301C1916	1	Prior to Spec "C".
	301C2124	1	Spec "C" and "D".
			Begin Spec "E".
2	193B106	1	Gauge, Water Temperature (Panel Unit only) - Models with basic 12 volt system.
3	193B107	1	Gauge, Oil Pressure (Panel Unit only) - Models with basic 12 volt system.
4	332-614	1	Connector, Wire - For #14 to #18 size wire.
5	338C199	1	Harness, Wiring - Engine Controls - Prior to Spec "E".
5	Describe	1	Harness, Wiring - Engine Controls - Begin Spec "E".
6	302P60	1	Ammeter Charge -
	302A61	1	Prior to Spec "C".
			Begin Spec "C".
7	307B4	1	Relay, Anti-dieseling Control - Prior to Spec "C".
7			Relay, Stop - Prior to Spec "E".
8	304P32	1	Resistor, Fixed (15 Ohm, 10 Watt) - Stop Relay - Prior to Spec "E".
8	304A192	1	Resistor, Fixed (3 Ohm, 10 Watt) - Cranking Limiter - Begin Spec "F".
9	307B81	1	Relay, Start Ignition - Prior to Spec "E".
9	307B597	1	Relay, Start Ignition - Begin Spec "E".
10	322P49	1	Receptacle, Panel Light - Housed Model is only - Prior to Spec "E".
10	322P72	2	Receptacle, Panel Light - Housed Models only - Begin Spec "E".
11	322-26	1	Bulb, Panel Light - Housed Models only - Prior to Spec "E".
11	322-4	3	Bulb, (2) Panel Light - Housed Models only (1) Pilot Light - Begin Spec "E".
12	307B299	1	Relay, Emergency Stop -
	307B614	1	Prior to Spec "C".
12A	307A655	1	Spec "C" and "D".
			Relay, Latching - Emergency Stop - Begin Spec "E".
			Switch, Start-Stop -
13	308-90	1	Prior to Spec "C" - Use 308A166.
13A	308P154	1	Spec "C" and "D".
13B	308A166	1	Prior to Spec "C" - Replaces 308-90.
14	301A974	1	Bracket, Start-Stop Switch Mounting - Use only with 308-90 Switch.
15	308-91	1	Switch, Emergency Stop Reset Button - Prior to Spec "E".

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
17	307B52	1	Relay, Start-Disconnect.
18	307A388	1	Relay, Time Delay - Used only on Models with Low Oil Pressure Cut-off Switch.
19	309B64	1	Switch, Low Oil Pressure Cut-off (Mounts on Engine) Optional Equipment.
20	332A607	1	Block, Terminal - 12 Place.
21	332A608	1	Strip, Block Marker - 12 Place.
22	332A537	1	Block, Terminal - 4 Place - (Remote Operation) - Prior to Spec "E".
22A	332A611	1	Block, Terminal - 3 Place - (Remote Operation) - Begin Spec "E".
23	332A566	1	Strip, Block Marker - 4 Place (Remote Operation) - Prior to Spec "E".
23A	332A762	1	Strip, Block Marker - 3 Place (Remote Operation) - Begin Spec "E".
24	304A45	1	Resistor, Fixed (4 Ohm, 50 Watt) 3/4" x 4".
25	304A292	1	Insulator, Resistor - Use with 304A45.
26	308-2	1	Switch, Panel Lights - Begin Spec "E".
27	322-69	1	Receptacle, Pilot Light - Begin Spec "E".
28	308P138	1	Switch, Remote - (Remote Stop, Engine Run) - Begin Spec "E".
29	320A104	1	Circuit Breaker, Cranking Limiter - Begin Spec "E".
30	308A165	1	Switch and Plate, Remote Control Start-Stop (Optional) - Replaces 308A94.

FIG. 22 - LOWER CONTROL PANEL GROUP (Engine Instruments) (Cont.)

17	307B52	1	Relay, Start-Disconnect.
18	307A388	1	Relay, Time Delay - Used only on Models with Low Oil Pressure Cut-off Switch.
19	309B64	1	Switch, Low Oil Pressure Cut-off (Mounts on Engine) Optional Equipment.
20	332A607	1	Block, Terminal - 12 Place.
21	332A608	1	Strip, Block Marker - 12 Place.
22	332A537	1	Block, Terminal - 4 Place - (Remote Operation) - Prior to Spec "E".
22A	332A611	1	Block, Terminal - 3 Place - (Remote Operation) - Begin Spec "E".
23	332A566	1	Strip, Block Marker - 4 Place (Remote Operation) - Prior to Spec "E".
23A	332A762	1	Strip, Block Marker - 3 Place (Remote Operation) - Begin Spec "E".
24	304A45	1	Resistor, Fixed (4 Ohm, 50 Watt) 3/4" x 4".
25	304A292	1	Insulator, Resistor - Use with 304A45.
26	308-2	1	Switch, Panel Lights - Begin Spec "E".
27	322-69	1	Receptacle, Pilot Light - Begin Spec "E".
28	308P138	1	Switch, Remote - (Remote Stop, Engine Run) - Begin Spec "E".
29	320A104	1	Circuit Breaker, Cranking Limiter - Begin Spec "E".
30	308A165	1	Switch and Plate, Remote Control Start-Stop (Optional) - Replaces 308A94.

FIG. 23 - UPPER CONTROL PANEL GROUP (AC Output)

NOTE: For Unhoused Models with OPTIONAL METER PANEL. AC Meter Panel parts apply as given for the Housed Models.

1	★	1	Panel only, Upper.
2	301D1106	1	Box, Control - Prior to Spec "E".
2A	301D2177	1	Box, Control - Begin Spec "E".
3	301B1124	1	Bracket, Control Box Mounting - Left Hand - Unhoused Models only.
4	301B1125	1	Bracket, Control Box Mounting - Right Hand - Unhoused Models only.
5	402-70	4	Mounts, Rubber (Unhoused Models only).
6	337A44	1	Strap, Ground (Unhoused Panels only).
8			*Transformer, Current - Housed Models (Check TRANSFORMER Nameplate - Select according to rating) -
	302B76	3	Transformer Nameplate Reads "Ratio 75/5" (Use with 0-75 AC Ammeter).
	302B77	3	Transformer Nameplate Reads "Ratio 80/5" (Use with 0-75 AC Ammeter).
	302B125	3	Transformer Nameplate Reads "Ratio 140/5" (Use with 0-140 AC Ammeter).
	302B79	3	Transformer Nameplate Reads "Ratio 150/5" (Use with 0-150 AC Ammeter).

* - Applies to 60 Cycle Plants only.

★ - Order by description, giving Model, Spec and Serial Number (ONAN Nameplate).

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 23 - UPPER CONTROL PANEL GROUP (AC Output) (Cont.)

	302B106	3	Transformer Nameplate Reads "Ratio 200/5" (Use with 0-200 AC Ammeter).
	302B209	2	Transformer Nameplate Reads "Ratio 250/5" (Use with 0-250 AC Ammeter).
	302B78	3	Transformer Nameplate Reads "Ratio 100/5" (Use with 0-100 AC Ammeter).
9	302A235	3	Clamp, Transformer Mounting - Inside Half - Housed Models - (Note: Quantity is 2 for single phase models).
10	302A236	3	Clamp, Transformer Mounting - Outside Half - Housed Models - (Note: Quantity is 2 for single phase models).
11	508P63	1	Grommet, Rubber - 2 1/4" x 3-3/8" x 1/4" (For 2-3/4" Hole).
12	301B1136	1	Cover, Output Lead - Unhoused Models only.
15	332A513	1	Block, Terminal - AC Output - 13-3/8" x 2-1/2".
16	332A333	1	Block, Terminal - 2 Place - Spec "A" Models only.
17	332A636	1	Strip, Block Marker - 2 Place - Spec "A" Models only.
18	302P421	1	Voltmeter, AC (Check VOLTMETER Scale - Select according to reading) - Voltmeter Scale Reads 0-300 - Replaces 302-41.
	302P422	1	Voltmeter Scale Reads 0-600 - Replaces 302-42.
	302P488	1	Voltmeter Scale Reads 0-750 - Replaces 302-150.
19	312A58	2	Condenser, Output Terminal Suppression - Single Phase Models - Replaces 312A15.
	312A58	3	120/208 Volt - 3 Phase Models - Replaces 312A15.
	312A58	4	120/240 Volt Delta - 3 Phase Models.
	312A22	3	480 Volt - 3 Phase Models.
	312A22	4	277/480 Volt - 3 Phase - Unhoused Models - Begin Spec "E".
20	302-157	1	Multplier, Meter (Resistor) - 220/380 Volt, or 480 Volt - 3 Phase Models - Prior to Spec "E".
20	302-163	1	Multplier, Meter (Resistor) - 600 Volt - 3 Phase Models - Prior to Spec "E".
22	302P406	1	*Ammeter, AC - Housed Models (Check AMMETER Scale - Select according to reading) - Ammeter Scale Reads 0-75 - Replaces 302-9.
	302P408	1	Ammeter Scale Reads 0-100 - Replaces 302-11.
	302P409	1	Ammeter Scale Reads 0-140 - Replaces 302-126.
	302P410	1	Ammeter Scale Reads 0-150 - Replaces 302-12.
	302P411	1	Ammeter Scale Reads 0-200 - Replaces 302-13.
	302P412	1	Ammeter Scale Reads 0-260 - Replaces 320-208.

* Applies to 60 Cycle Plants only.

PARTS LIST

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
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FIG. 23 - UPPER CONTROL PANEL GROUP (AC Output) (Cont.)

25	320B18	1	Breaker, Circuit - Single Phase Models.
25	320B2	1	Breaker, Circuit - 3 Phase Models.
26	302B212	1	Meter, Running Time - Housed Models - 60 Cycle Models - Prior to Spec "E" (Note: When used to replace #302-387 on plants requiring a resistor, also order #104A134 Resistor for 600 Volt Model).
302P465		1	60 Cycle Models - Begin Spec "E". *120/240 Volt - 1 Phase and 120/208 Volt, 120/240 Volt, and 600 Volt - 3 Phase.
302P466		1	220/380 Volt - 3 Phase.
302P467		1	*480 Volt, and 277/480 Volt - 3 Phase.
302-102		1	50 Cycle Models - Prior to Spec "E". 50 Cycle Models - Begin Spec "E".
302P468		1	*120/240 Volt - 1 Phase, and 120/208 Volt, 120/240 Volt, and 600 Volt - 3 Phase.
302P469		1	220/380 Volt - 3 Phase.
302P470		1	*480 Volt, and 277/480 Volt - 3 Phase.
27	308-22	1	Switch, Voltage and Current Selector - 3 Phase Housed Models.
30	304A99	1	Resistor, Running Time Meter - Housed Models - 220/380 Volt - 3 Phase Models - Prior to Spec "E" - (Use with 302B212 or 302-102 Meter).
	304A125	1	*480 Volt - 3 Phase Models - Prior to Spec "E" - (Use with 302B212 or 302-102 Meter).
	304A134	1	*600 Volt - 3 Phase Models - Prior to Spec "E" - (Use with 302B212 or 302-102 Meter).
	304A536	1	*600 Volt - 3 Phase Models - Begin Spec "E" - (Use with 302P465 or 302P488 Meter).
33	303-97	1	Rheostat, Voltage Regulator - Begin Spec "B" - All Models EXCEPT 600 Volt - 3 Phase - (75 ohm, Model "H").
	★ 303-32	1	600 Volt - 3 Phase Models.
34	303-32	1	Knob, Rheostat - Begin Spec "B".
35	304A479	1	Resistor, Rheostat - Begin Spec "B" - All Models EXCEPT 600 Volt - 3 Phase - (425 ohm, 50 Watt - 3/4" x 4").
	★ 332A604	1	600 Volt - 3 Phase Models.
36	332A604	1	Block, Terminal - 5 place - Exciter Connections - Begin Spec "B".

★ Order by description, giving Model, Spec and Serial Number (ONAN Nameplate).

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 23 - UPPER CONTROL PANEL GROUP (AC Output) (Cont.)			
37	332A689	1	Strip, Block Marker - 5 Place - Begin Spec "B".
	332A690	1	All Models EXCEPT 480 Volt, 220/380 Volt, and 600 Volt - 3 Phase Models.
			480 Volt, 220/380 Volt, and 600 Volt - 3 Phase Models.
38	301A1914	1	Bracket, Panel Stop.
FIG. 24 - HOUSING GROUP			
NOTE: Parts in this group are used on Housed Models only, except where Unhoused is specified.			
1	403D331	1	Chassis Mounting - Front Section - Housed or Unhoused Models -
	403D629	1	Prior to Spec "D".
			Beginning Spec "D".
2	403D532	1	Chassis, Mounting - Rear Section -
	403D345	1	All 3 Phase, all 1 Phase prior to Spec "D".
			1 Phase begin Spec "D".
3	403A373	1	Plate, Chassis - 9-1/2" x 9" - Mounts on Lower Rear Left Side of Chassis.
4	405DD30	1	Panel, Housing Side - Right -
	405C942	1	All 3 Phase, all 1 Phase prior to Spec "D".
			1 Phase begin Spec "D".
5	405DD931	1	Panel, Housing Side - Left -
	405C943	1	All 3 Phase, all 1 Phase prior to Spec "D".
			1 Phase begin Spec "D".
6	405C934	2	Panel, Door.
7	406A105	4	Clamp Door.
8	405D928	1	Panel, Rear Housing.
9	405D932	1	Door, Rear Panel.
10	406-2	1	Knob Door.
11	870-106	As Req.	Nut, Tinnerman Speed - "J" Type - #14 Screw - Housing Assembly.
11	870-113	As Req.	Nut Tinnerman Speed - 5/16-18 Thread - Housing Assembly.
12	405DD29	1	Panel, Top Housing -
	405D941	1	All 3 Phase, all 1 Phase prior to Spec "D".
			1 Phase begin Spec "D".

PARTS LIST

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
13	405D927	1	Panel, Front Housing - Housed or Unhoused models.
14	416B338	1	Frame, Battery Hold Down - Housed or Unhoused models.
15	520A231	2	Shud, Battery Hold Down - Housed or Unhoused models.
16	416B358	1	Tray, Battery Support - Housed or Unhoused models.
17	336A476	1	Wire, Housing Ground - Housed or Unhoused models.
18	159D489	1	Strap, Fuel Tank - Appears also in Fuel System Group.
19	405C964	1	Extension, Radiator Hood - Unhoused models only.
20	403C374	1	Edging, Chassis - Right Hand - Unhoused models only.
21	403C375	1	Edging, Chassis - Left Hand - Unhoused models only.
	406A88	1	Clip, Door Latching.

FIG. 24 - HOUSING GROUP (Cont.)

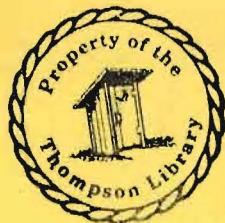
REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
1	502-74	1	Modification
2	154A399	1	504-19
3	154A400	1	504-20
4	154A398	1	Describe
5	505-60	1	8 inches
6		1	Chain, Valve Key, - 8"
7		1	Ring, 5/8" Diameter - Valve Key to Chain.
8		1	Bracket and Nipple Assembly.
9	518-29	1	Valve, Solenoid 1/2" - 12 Volt.
10	110A326	2	Nipple, Pipe - 1 1/2" x 1-1/8".
11	307P182	1	Elbow, Pipe - 1/2" x 90°.
12	505-100	7	Hose, 11 inches
13	505-40	5	Clamp, Hose.
14	503-191	11	Nipple, Pipe - 1/2" x 5".
15	503-189	4	Bushing, Pipe Reducer - 1/2 x 3/8".
16	505-80	1	Nipple, Pipe Close - 3/8 x 1".
17	505-19	2	Cock, Flat Head Brass.
18	505-101	3	
19	504-30	1	

FIG. 24 - HOUSING GROUP (Reference 179C17)

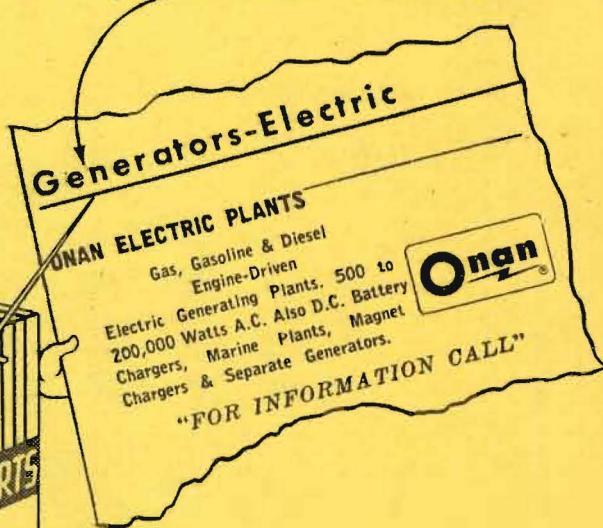


REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
1		1	Drill 7/32" hole in butterfly of existing water thermostat.
6		6	Elbow, Inverted Male.
1		1	Line, Water Manifold Crossover.
1		1	Line, Water Manifold to Outlet.
1		1	Line, Water Manifold to Inlet.
		1	Tee, Pipe - 3/8".
		1	Valve, Water - 1/2".
		1	Key, Valve.
		1	Chain, Valve Key, - 8"
		1	Ring, 5/8" Diameter - Valve Key to Chain.
		1	Bracket and Nipple Assembly.
		1	Valve, Solenoid 1/2" - 12 Volt.
		7	Nipple, Pipe - 1 1/2" x 1-1/8".
		5	Elbow, Pipe - 1/2" x 90°.
		11	Hose, 11 inches
		4	Clamp, Hose.
		1	Nipple, Pipe - 1/2" x 5".
		2	Bushing, Pipe Reducer - 1/2 x 3/8".
		3	Nipple, Pipe Close - 3/8 x 1".
		1	Cock, Flat Head Brass.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
20	505-108	1	Tee, Pipe - 1/2".
21	503-191	24	inches Hose.
22	110A522	1	Adapter, Water Outlet.
23	503-129	2	Clamp, Hose - 1-7/8".
24	503A3	1	Hose - 1-1/2" x 1-7/8" x 2-1/2" long.
25	154P353	2	Manifold, Water Cooled.
26	154B655	1	Outlet, Exhaust Manifold - Opposite from Charge Generator (Replaces #154B403).
27	154B404	1	Outlet, Exhaust Manifold - Nearer Charge Generator.
28	800-93	1	Screw, Hex Head Cap - 1/2-13 x 1-3/4".
29	856-13	1	Washer, Int. Ext. Tooth - 1/2".
30	526-61	2	Washer, Flat - Brass.
31	402A36	1	Rubber.
32	862-5	1	Nut, Hex - 1/2-18".
33	505-334	2	Plug, Pipe - Manifold.
	403C384	1	Cover, Front Chassis (Not illustrated) - For Unhoused Models only.
	130C379	1	Guard, Belt (Not illustrated) - For Unhoused Models only.
FIG. 25 - CITY WATER COOLING GROUP (Reference 179C17) (Cont.)			
FIG. 26 - WATER COOLED MANIFOLD GROUP (RADIATOR COOLING) Reference 179C32			
Modification	1	1	Drill and Tap 3/8" N.P.T. - Engine Top Water Outlet.
505-101	3	3	Nipple, Pipe Close - 3/8 x 1".
505-39	3	3	Elbow, Pipe - 3/8 x 90°.
502-74	4	4	Elbow, Inverted Male.
154A398	1	1	Line, Water - Manifold to Inlet.
154B404	1	1	Outlet, Exhaust Manifold - Nearer Charge Generator.
154B403	1	1	Outlet, Exhaust Manifold - Opposite Charge Generator.
154P353	1	1	Manifold Set, Water Cooled.
505-135	2	2	Nipple, Pipe Half - 3/8".
503-131	2	2	Clamp, Hose.
505-188	15	15	inches Hose - 5/8" I.D.
154A399	1	1	Line, Water Manifold Crossover.



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✓ Write the factory for a complete current listing of Onan World Wide Parts and Service Centers.